

Serial Number: 09/778,963

CRF Processing Date: _____
 Edited by: _____
 Verified by: _____ (STIC sta

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☒ Other: Corrected misaligned amino acid numbering in left margin of sequence #3.

ENTERED

RECEIVED

JUN 12 2001

TECH CENTER 1600/2900

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

1645

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,963

DATE: 05/30/2001

TIME: 12:13:43

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05302001\I778963.raw

4 <110> APPLICANT: NEELAM, Beena et al
 6 <120> TITLE OF INVENTION: ISOLATED HUMAN RAS-LIKE PROTEINS,
 7 NUCLEIC ACID MOLECULES ENCODING THESE HUMAN RAS-LIKE
 8 PROTEINS, AND USES THEREOF
 10 <130> FILE REFERENCE: CL001112
 12 <140> CURRENT APPLICATION NUMBER: 09/778,963
 13 <141> CURRENT FILING DATE: 2001-02-08
 15 <160> NUMBER OF SEQ ID NOS: 5
 17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 3082
 21 <212> TYPE: DNA
 22 <213> ORGANISM: Human
 24 <400> SEQUENCE: 1
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 26 gaggatcccc gcgcagtgac ccgggagcca ccacagactc tgggaggctc ggcggtgga 120
 27 gcagcaggca gctccccgca gctcccgcg cttccaggca gctctctgag ccgtgccaga 180
 28 ggccccggccc gccattccca gccccgagcc atgatgaaga ctttgtccag cgggaactgc 240
 29 acgctcagtg tgcccgcga aaactcatac cgcattggtg tgctgggtgc ctctcgggtg 300
 30 ggcaagagct ccatcgtgtc tcgttctctc aatggccgct ttgaggacca gtacacaccc 360
 31 accatcgagg acttccaccg taaggtatac aacatccgcg gcgacatgta ccagctcgac 420
 32 atcctggata cctctggcaa ccacccttc cccgccatgc gcaggctgtc catcctcaca 480
 33 ggggatgtct tcatcctggt gttcagcctg gataaccggg agtccttcca tgaggtaag 540
 34 cgccttcaga agcagatcct ggaggtcaag tcctgcctga agaacaagac caaggaggcg 600
 35 gcggagctgc ccatggtcat ctgtggcaac aagaacgacc acggcgagct gtgccgccag 660
 36 gtgcccacca ccgaggccga gctgctggtg tcgggcgacg agaactccgc ctacttcgag 720
 37 gtgtcggcca agaagaacac caacgtggac gagatgttct acgtgctctt cagcatggcc 780
 38 aagctgccac acgagatgag ccccgccctg catcgcaaga tctccgtgca gtacgggtgac 840
 39 gccttcacc ccaggccctt ctgcatgcgc cgcgtcaagg agatggacgc ctatggcatg 900
 40 gtctcgcct tcgcccgcg cccagcgtc aacagtgaac tcaagtacat caaggccaag 960
 41 gtccttcggg aaggccaggc ccgtgagagg gacaagtga ccatccagtg agcgagggat 1020
 42 gctggggcgg ggcttgcca gtgccttcag ggaggtggcc ccagatgccc actgtgcgca 1080
 43 tctccccacc gaggccccg cagcagtcct gttcacagac cttaggcacc agactggagg 1140
 44 cccccgggcg ctggcctccg cacattcgtc tgcttctca cagctttcct gagtccgctt 1200
 45 gtccacagct ccttggtggt ttcattctct ctgtgggagg acacatctct gcagcctcaa 1260
 46 gagttaggca gagactcaag ttacaccttc ctctcctggg gttggaagaa atgttgatgc 1320
 47 cagaggggtg aggattgctg cgtcatatgg agcctcctgg gacaagcctc aggatgaaaa 1380
 48 ggacacagaa ggccagatga gaaaggtctc ctctctcctg gcataacacc cagcttggtt 1440
 49 tgggtggcag ctgggagaac ttctctccca gccctgcaac tcttacgctc tgggttcagct 1500
 50 gcctctgcac cccctccac cccagcaca cacacaagtt ggccccagc tgcgcctgac 1560
 51 attgagccag tggactctgt gtctgaaggg ggcgtggcca cacctcctag accacgcca 1620
 52 ccacttagac cagccccacc tcctgaccgc gttcctcagc ctcctctcct aggtccctcc 1680
 53 gccgacagt tgtgtttgt tgtggttgca gctgttttcg tgtcatgtat agtagtagaa 1740
 54 atggaaatca ttgtactgta aaagcctagt gactccctcc ttggccaggc cctcaccag 1800
 55 ttcagatcca cggcctccac ccgggacgcc ttctcctct gctcccaaac agggtttccg 1860
 56 tggcctgttt gcagctagac attgacctcc gccattgagc tccacggttt acagacaatt 1920
 57 gcacaagcgt ggggtgggca ggccaggact gctttttttt aatgtccca tttcacagag 1980

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,963

DATE: 05/30/2001

TIME: 12:13:43

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05302001\I778963.raw

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58 gataccaccg agactcggag gggacacgat gagcaccagg cccacacctt gtcccctagc 2040
59 aaattcaggg tacagctcca cctagaacca ggctgccctc tactgtgctc gttcctcaag 2100
60 catttattaa gcacctactg ggtgctgggt tcactgtgtc ctaggaaacc aagagggtcc 2160
61 ccagtcctgg cctctgcccg cccctgctgc cccaccacct tctgcacaca cagcgggtgg 2220
62 gaggcgggga ggagcagctg ggaccagaa ctgagcctgg gagggatccg acagaaaagc 2280
63 tcagggcggg tcttctcctt gtgcccggga ttgggctatg ctgggtacca ccatgtactc 2340
64 aggcattggt ggttttgaac ccataaacca aaggcccttg tcatcagctc ttaacaagta 2400
65 tattttgtat tttaatctct ctaaaccatat tgaagtttta gggccctaag gaaccttagt 2460
66 gatcttctat tgggtctttc tgaggttcag agagggttaag taacttctc caggtcacac 2520
67 agcaagtctg tgggtggcag aagcaagcta gcgctgggca ttcagtacat accacgatgt 2580
68 gtcctctctc ttgatgcttg gccctgggg ccttcagggc tttgggacat cttgtcctca 2640
69 accctctccc tagatcagtc tgtgagggtc cctgtagata ttgtgtacac catgcccag 2700
70 tatatacaag tacacacaga tgtacacaca gatgtacaca tgctccagcc ccagctctgc 2760
71 atacctgcac ctgcacccca gccttggccc ctgcctgcgt ctgtgctcaa agcagcagct 2820
72 ccaaccctgc ctctgtcccc ttccccaccc actgcctgag ccttctgagc agaccaggta 2880
73 ccttggctgc accggtgtgt ggcccgtct caccaggga cagccccgcc accatggatc 2940
74 tccgtgtaca ctatcaataa aagtgggttt gttacaaaaa aaaaaaaaaa aaaaaaaaaa 3000
75 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3060
76 aaaaaaaaaa aaaaaaaaaa aa 3082

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78 <210> SEQ ID NO: 2

79 <211> LENGTH: 266

80 <212> TYPE: PRT

81 <213> ORGANISM: Human

83 <400> SEQUENCE: 2

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85 1 5 10 15
86 Lys Asn Ser Tyr Arg Met Val Val Leu Gly Ala Ser Arg Val Gly Lys
87 20 25 30
88 Ser Ser Ile Val Ser Arg Phe Leu Asn Gly Arg Phe Glu Asp Gln Tyr
89 35 40 45
90 Thr Pro Thr Ile Glu Asp Phe His Arg Lys Val Tyr Asn Ile Arg Gly
91 50 55 60
92 Asp Met Tyr Gln Leu Asp Ile Leu Asp Thr Ser Gly Asn His Pro Phe
93 65 70 75 80
94 Pro Ala Met Arg Arg Leu Ser Ile Leu Thr Gly Asp Val Phe Ile Leu
95 85 90 95
96 Val Phe Ser Leu Asp Asn Arg Glu Ser Phe Asp Glu Val Lys Arg Leu
97 100 105 110
98 Gln Lys Gln Ile Leu Glu Val Lys Ser Cys Leu Lys Asn Lys Thr Lys
99 115 120 125
100 Glu Ala Ala Glu Leu Pro Met Val Ile Cys Gly Asn Lys Asn Asp His
101 130 135 140
102 Gly Glu Leu Cys Arg Gln Val Pro Thr Thr Glu Ala Glu Leu Leu Val
103 145 150 155 160
104 Ser Gly Asp Glu Asn Ser Ala Tyr Phe Glu Val Ser Ala Lys Lys Asn
105 165 170 175
106 Thr Asn Val Asp Glu Met Phe Tyr Val Leu Phe Ser Met Ala Lys Leu
107 180 185 190
108 Pro His Glu Met Ser Pro Ala Leu His Arg Lys Ile Ser Val Gln Tyr

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,963

DATE: 05/30/2001

TIME: 12:13:43

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05302001\I778963.raw

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109          195          200          205
110 Gly Asp Ala Phe His Pro Arg Pro Phe Cys Met Arg Arg Val Lys Glu
111      210          215          220
112 Met Asp Ala Tyr Gly Met Val Ser Pro Phe Ala Arg Arg Pro Ser Val
113 225          230          235          240
114 Asn Ser Asp Leu Lys Tyr Ile Lys Ala Lys Val Leu Arg Glu Gly Gln
115          245          250          255
116 Ala Arg Glu Arg Asp Lys Cys Thr Ile Gln
117      260          265
120 <210> SEQ ID NO: 3
121 <211> LENGTH: 11221
122 <212> TYPE: PRT
123 <213> ORGANISM: Human
125 <400> SEQUENCE: 3
126 Cys Thr Cys Thr Cys Thr Gly Ala Cys Thr Cys Thr Thr Thr Gly Cys
127 1          5          10          15
128 Cys Thr Cys Cys Thr Cys Thr Cys Thr Gly Ala Cys Thr Cys Cys Cys
129      20          25          30
130 Thr Gly Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr Cys Thr Gly Thr
131      35          40          45
132 Cys Thr Cys Cys Cys Thr Gly Cys Cys Thr Cys Cys Thr Cys Thr Gly
133      50          55          60
134 Thr Cys Thr Gly Ala Cys Thr Cys Cys Cys Thr Gly Cys Cys Thr Cys
135 65          70          75          80
136 Cys Cys Cys Thr Cys Thr Cys Thr Gly Thr Cys Thr Cys Ala Cys Thr
137      85          90          95
138 Gly Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr Cys Thr Cys Thr Gly Ala Cys
139      100          105          110
140 Thr Cys Thr Cys Thr Gly Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr
141      115          120          125
142 Cys Thr Gly Ala Cys Thr Cys Cys Cys Thr Gly Cys Cys Thr Cys Cys
143      130          135          140
144 Thr Cys Thr Cys Thr Cys Thr Gly Ala Thr Thr Cys Cys Cys Thr Gly
145 145          150          155          160
146 Cys Cys Thr Cys Thr Thr Thr Gly Ala Cys Cys Cys Thr Cys Thr Gly
147      165          170          175
148 Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr Thr Thr Gly Ala Cys Thr
149      180          185          190
150 Cys Cys Cys Thr Gly Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr Cys
151      195          200          205
152 Cys Gly Ala Thr Thr Cys Thr Cys Thr Gly Cys Gly Thr Cys Thr Thr
153      210          215          220
154 Thr Gly Ala Cys Thr Cys Cys Cys Thr Gly Cys Cys Thr Cys Cys Thr
155 225          230          235          240
156 Cys Thr Cys Thr Cys Thr Gly Ala Cys Thr Cys Cys Cys Thr Gly Ala
157      245          250          255
158 Ala Gly Cys Thr Cys Ala Thr Thr Cys Ala Gly Thr Cys Ala Thr Thr
159      260          265          270
160 Gly Cys Thr Ala Thr Cys Ala Ala Cys Thr Cys Gly Thr Cys Thr Gly

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,963

DATE: 05/30/2001

TIME: 12:13:43

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05302001\I778963.raw

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161          275          280          285
162 Thr Ala Cys Cys Ala Ala Gly Cys Thr Cys Thr Ala Gly Gly Cys Thr
163          290          295          300
164 Gly Gly Ala Gly Gly Cys Thr Gly Gly Gly Cys Ala Gly Gly Gly Cys
165 305          310          315          320
166 Ala Ala Thr Gly Ala Thr Gly Gly Ala Gly Ala Cys Ala Ala Ala Thr
167          325          330          335
168 Ala Cys Thr Gly Thr Cys Cys Cys Thr Gly Gly Gly Ala Gly Cys Thr
169          340          345          350
170 Thr Cys Thr Gly Gly Cys Cys Cys Cys Thr Thr Thr Cys Cys Cys Ala
171          355          360          365
172 Thr Cys Cys Thr Gly Thr Thr Thr Ala Gly Ala Cys Ala Gly Ala Ala
173          370          375          380
174 Gly Thr Gly Ala Cys Cys Gly Cys Cys Ala Gly Cys Ala Gly Ala Gly
175 385          390          395          400
176 Thr Cys Ala Ala Gly Cys Thr Gly Thr Cys Thr Gly Cys Ala Gly Ala
177          405          410          415
178 Ala Gly Gly Ala Cys Thr Thr Gly Gly Gly Gly Ala Gly Gly Gly Gly
179          420          425          430
180 Gly Cys Thr Gly Thr Cys Ala Thr Gly Gly Gly Gly Thr Ala Gly Gly
181          435          440          445
182 Gly Cys Thr Thr Cys Thr Thr Thr Cys Cys Cys Cys Cys Cys Ala Thr
183          450          455          460
184 Cys Thr Cys Thr Gly Cys Thr Gly Ala Ala Gly Gly Cys Cys Cys Ala
185 465          470          475          480
186 Gly Gly Cys Thr Gly Gly Cys Thr Gly Ala Gly Ala Cys Ala Gly Cys
187          485          490          495
188 Cys Cys Cys Gly Gly Cys Ala Gly Ala Gly Ala Cys Thr Gly Ala Gly
189          500          505          510
190 Ala Ala Gly Gly Gly Cys Thr Cys Cys Cys Thr Gly Cys Thr Gly Thr
191          515          520          525
192 Gly Gly Thr Cys Thr Gly Gly Cys Ala Gly Cys Cys Cys Cys Cys Thr
193          530          535          540
194 Cys Thr Cys Cys Ala Cys Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr
195 545          550          555          560
196 Cys Thr Cys Ala Thr Thr Cys Cys Thr Gly Cys Cys Thr Cys Cys
197          565          570          575
198 Cys Ala Cys Ala Cys Gly Thr Ala Thr Gly Cys Cys Cys Thr Gly Gly
199          580          585          590
200 Gly Cys Ala Cys Cys Thr Cys Ala Thr Cys Ala Gly Gly Gly Cys Thr
201          595          600          605
202 Gly Cys Cys Cys Thr Ala Gly Gly Gly Gly Ala Gly Gly Gly Cys Cys
203          610          615          620
204 Cys Thr Cys Cys Thr Thr Gly Gly Cys Ala Cys Ala Gly Cys Cys Cys
205 625          630          635          640
206 Cys Thr Gly Gly Gly Cys Cys Ala Gly Thr Cys Ala Gly Gly Thr Gly
207          645          650          655
208 Gly Thr Thr Gly Ala Gly Gly Cys Thr Gly Ala Gly Gly Ala Gly Ala
209          660          665          670

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,963

DATE: 05/30/2001

TIME: 12:13:43

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05302001\I778963.raw

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210 Gly Ala Ala Gly Gly Thr Cys Cys Cys Ala Gly Ala Gly Thr Gly Gly
211      675      680      685
212 Gly Gly Cys Thr Thr Cys Ala Gly Gly Cys Ala Ala Cys Cys Cys
213      690      695      700
214 Ala Ala Ala Gly Ala Cys Ala Gly Ala Gly Cys Cys Cys Thr Thr Thr
215 705      710      715      720
216 Gly Cys Cys Ala Thr Thr Thr Gly Ala Thr Gly Ala Ala Thr Gly Cys
217      725      730      735
218 Ala Cys Ala Gly Ala Cys Cys Cys Thr Thr Thr Ala Thr Thr Gly Ala
219      740      745      750
220 Gly Cys Cys Cys Cys Thr Gly Cys Thr Cys Thr Gly Thr Thr Cys Ala
221      755      760      765
222 Thr Gly Gly Cys Ala Thr Gly Gly Cys Ala Gly Thr Thr Thr Thr Gly
223      770      775      780
224 Thr Gly Gly Gly Ala Thr Ala Ala Ala Thr Thr Cys Ala Ala Ala Gly
225 785      790      795      800
226 Ala Cys Ala Gly Cys Thr Thr Thr Ala Gly Gly Thr Gly Gly Gly Ala
227      805      810      815
228 Gly Cys Thr Gly Gly Gly Thr Gly Gly Gly Gly Ala Thr Gly Thr
229      820      825      830
230 Gly Gly Gly Gly Gly Thr Cys Thr Ala Gly Gly Cys Thr Thr Gly
231      835      840      845
232 Ala Ala Cys Thr Ala Cys Thr Ala Cys Cys Cys Ala Gly Cys Cys Thr
233      850      855      860
234 Cys Cys Thr Thr Thr Gly Thr Thr Ala Ala Cys Cys Ala Ala Gly Thr
235 865      870      875      880
236 Ala Gly Cys Thr Ala Gly Thr Cys Ala Cys Gly Thr Ala Gly Cys Cys
237      885      890      895
238 Thr Thr Cys Thr Gly Ala Gly Cys Thr Cys Gly Gly Gly Gly Cys Ala
239      900      905      910
240 Gly Ala Cys Cys Ala Cys Cys Thr Gly Gly Gly Ala Thr Cys Ala Ala
241      915      920      925
242 Ala Cys Cys Thr Cys Thr Cys Cys Thr Cys Thr Gly Cys Thr Gly Gly
243      930      935      940
244 Thr Thr Ala Cys Thr Gly Gly Cys Thr Gly Thr Gly Cys Ala Ala Cys
245 945      950      955      960
246 Thr Gly Thr Ala Ala Gly Cys Ala Ala Gly Thr Ala Ala Thr Thr Thr
247      965      970      975
248 Ala Ala Cys Cys Thr Cys Thr Cys Thr Gly Thr Gly Cys Cys Thr Cys
249      980      985      990
250 Ala Gly Thr Thr Thr Cys Cys Thr Cys Ala Thr Cys Thr Gly Thr Ala
251      995      1000      1005
252 Ala Ala Thr Thr Gly Gly Ala Gly Ala Ala Thr Ala Ala Cys Ala Cys
253      1010      1015      1020
254 Cys Ala Cys Cys Thr Gly Cys Thr Thr Thr Cys Thr Gly Gly Gly Gly
255 1025      1030      1035      1040
256 Thr Thr Ala Thr Gly Ala Ala Gly Gly Gly Ala Gly Ala Ala Ala Thr
257      1045      1050      1055
258 Ala Gly Gly Thr Thr Ala Ala Cys Ala Thr Gly Thr Gly Thr Gly Cys

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/778,963

DATE: 05/30/2001

TIME: 12:13:44

Input Set : A:\Cpg.pto

Output Set: C:\CRF3\05302001\I778963.raw

1645

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/778,963

DATE: 05/17/2001
 TIME: 08:43:07

Input Set : A:\Seqlist.txt
 Output Set: N:\CRF3\05172001\I778963.raw

Does Not Comply
 Corrected Diskette Needed
 See pp. 27-29

4 <110> APPLICANT: NEELAM, Beena et al
 6 <120> TITLE OF INVENTION: ISOLATED HUMAN RAS-LIKE PROTEINS,
 7 NUCLEIC ACID MOLECULES ENCODING THESE HUMAN RAS-LIKE
 8 PROTEINS, AND USES THEREOF
 10 <130> FILE REFERENCE: CL001112
 12 <140> CURRENT APPLICATION NUMBER: 09/778,963
 13 <141> CURRENT FILING DATE: 2001-02-08
 15 <160> NUMBER OF SEQ ID NOS: 5
 17 <170> SOFTWARE: FastSEQ for Windows Version 4.0

ERRORED SEQUENCES

120 <210> SEQ ID NO: 3
 121 <211> LENGTH: 11221
 122 <212> TYPE: PRT
 123 <213> ORGANISM: Human
 125 <400> SEQUENCE: 3
 126 Cys Thr Cys Thr Cys Thr Gly Ala Cys Thr Cys Thr Thr Thr Gly Cys
 127 1 5 10 15
 128 Cys Thr Cys Cys Thr Cys Thr Cys Thr Gly Ala Cys Thr Cys Cys Cys
 129 20 25 30
 130 Thr Gly Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr Cys Thr Gly Thr
 131 35 40 45
 132 Cys Thr Cys Cys Cys Thr Gly Cys Cys Thr Cys Cys Thr Cys Thr Gly
 133 50 55 60
 134 Thr Cys Thr Gly Ala Cys Thr Cys Cys Cys Thr Gly Cys Cys Thr Cys
 135 65 70 75 80
 136 Cys Cys Cys Thr Cys Thr Cys Thr Gly Thr Cys Thr Cys Ala Cys Thr
 137 85 90 95
 138 Gly Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr Cys Thr Gly Ala Cys
 139 100 105 110
 140 Thr Cys Thr Cys Thr Gly Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr
 141 115 120 125
 142 Cys Thr Thr Gly Ala Cys Thr Cys Cys Cys Thr Gly Cys Cys Thr Cys Cys
 143 130 135 140
 144 Thr Cys Thr Cys Thr Cys Thr Gly Ala Thr Thr Cys Cys Cys Thr Gly
 145 145 150 155 160
 146 Cys Cys Thr Cys Thr Thr Thr Gly Ala Cys Cys Cys Thr Cys Thr Gly
 147 165 170 175
 148 Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr Thr Thr Gly Ala Cys Thr
 149 180 185 190
 150 Cys Cys Cys Thr Gly Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr Cys
 151 195 200 205
 152 Cys Gly Ala Thr Thr Cys Thr Cys Thr Gly Cys Gly Thr Cys Thr Thr
 153 210 215 220
 154 Thr Gly Ala Cys Thr Cys Cys Cys Thr Gly Cys Cys Thr Cys Cys Thr

RAW SEQUENCE LISTING

DATE: 05/17/2001

PATENT APPLICATION: US/09/778,963

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

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155 225          230          235          240
156 Cys Thr Cys Thr Cys Thr Gly Ala Cys Thr Cys Cys Cys Thr Gly Ala
157          245          250          255
158 Ala Gly Cys Thr Cys Ala Thr Thr Cys Ala Gly Thr Cys Ala Thr Thr
159          260          265          270
160 Gly Cys Thr Ala Thr Cys Ala Ala Cys Thr Cys Gly Thr Cys Thr Gly
161          275          280          285
162 Thr Ala Cys Cys Ala Ala Gly Cys Thr Cys Thr Ala Gly Gly Cys Thr
163          290          295          300
164 Gly Gly Ala Gly Gly Cys Thr Gly Gly Gly Cys Ala Gly Gly Gly Cys
165 305          310          315          320
166 Ala Ala Thr Gly Ala Thr Gly Gly Ala Gly Ala Cys Ala Ala Ala Thr
167          325          330          335
168 Ala Cys Thr Gly Thr Cys Cys Cys Thr Gly Gly Gly Ala Gly Cys Thr
169          340          345          350
170 Thr Cys Thr Gly Gly Cys Cys Cys Cys Thr Thr Thr Cys Cys Cys Ala
171          355          360          365
172 Thr Cys Cys Thr Gly Thr Thr Thr Ala Gly Ala Cys Ala Gly Ala Ala
173          370          375          380
174 Gly Thr Gly Ala Cys Cys Gly Cys Cys Ala Gly Cys Ala Gly Ala Gly
175 385          390          395          400
176 Thr Cys Ala Ala Gly Cys Thr Gly Thr Cys Thr Gly Cys Ala Gly Ala
177          405          410          415
178 Ala Gly Gly Ala Cys Thr Thr Gly Gly Gly Gly Ala Gly Gly Gly Gly
179          420          425          430
180 Gly Cys Thr Gly Thr Cys Ala Thr Gly Gly Gly Gly Thr Ala Gly Gly
181          435          440          445
182 Gly Cys Thr Thr Cys Thr Thr Thr Cys Cys Cys Cys Cys Cys Ala Thr
183          450          455          460
184 Cys Thr Cys Thr Gly Cys Thr Gly Ala Ala Gly Gly Cys Cys Cys Ala
185 465          470          475          480
186 Gly Gly Cys Thr Gly Gly Cys Thr Gly Ala Gly Ala Cys Ala Gly Cys
187          485          490          495
188 Cys Cys Cys Gly Gly Cys Ala Gly Ala Gly Ala Cys Thr Gly Ala Gly
189          500          505          510
190 Ala Ala Gly Gly Gly Cys Thr Cys Cys Cys Thr Gly Cys Thr Gly Thr
191          515          520          525
192 Gly Gly Thr Cys Thr Gly Gly Cys Ala Gly Cys Cys Cys Cys Cys Thr
193          530          535          540
194 Cys Thr Cys Cys Ala Cys Cys Cys Thr Cys Cys Thr Cys Thr Cys Thr
195 545          550          555          560
196 Cys Thr Cys Ala Thr Thr Thr Cys Cys Thr Gly Cys Cys Thr Cys Cys
197          565          570          575
198 Cys Ala Cys Ala Cys Gly Thr Ala Thr Gly Cys Cys Cys Thr Gly Gly
199          580          585          590
200 Gly Cys Ala Cys Cys Thr Cys Ala Thr Cys Ala Gly Gly Gly Cys Thr
201          595          600          605
202 Gly Cys Cys Cys Thr Ala Gly Gly Gly Gly Ala Gly Gly Gly Cys Cys
203          610          615          620

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,963

DATE: 05/17/2001

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

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204 Cys Thr Cys Cys Thr Thr Gly Gly Cys Ala Cys Ala Gly Cys Cys Cys
205 625 630 635 640
206 Cys Thr Gly Gly Gly Cys Cys Ala Gly Thr Cys Ala Gly Gly Thr Gly
207 645 650 655
208 Gly Thr Thr Gly Ala Gly Gly Cys Thr Gly Ala Gly Gly Ala Gly Ala
209 660 665 670
210 Gly Ala Ala Gly Gly Thr Cys Cys Ala Gly Ala Gly Thr Gly Gly
211 675 680 685
212 Gly Gly Cys Thr Thr Cys Ala Gly Gly Cys Ala Ala Ala Cys Cys Cys
213 690 695 700
214 Ala Ala Ala Gly Ala Cys Ala Gly Ala Gly Cys Cys Cys Thr Thr Thr
215 705 710 715 720
216 Gly Cys Cys Ala Thr Thr Gly Ala Thr Gly Ala Ala Thr Gly Cys
217 725 730 735
218 Ala Cys Ala Gly Ala Cys Cys Cys Thr Thr Thr Ala Thr Thr Gly Ala
219 740 745 750
220 Gly Cys Cys Cys Cys Thr Gly Cys Thr Cys Thr Gly Thr Thr Cys Ala
221 755 760 765
222 Thr Gly Gly Cys Ala Thr Gly Gly Cys Ala Gly Thr Thr Thr Thr Gly
223 770 775 780
224 Thr Gly Gly Gly Ala Thr Ala Ala Ala Thr Thr Cys Ala Ala Ala Gly
225 785 790 795 800
226 Ala Cys Ala Gly Cys Thr Thr Thr Ala Gly Gly Thr Gly Gly Gly Ala
227 805 810 815
228 Gly Cys Thr Gly Gly Gly Thr Gly Gly Gly Gly Ala Thr Gly Thr
229 820 825 830
230 Gly Gly Gly Gly Gly Thr Cys Thr Ala Gly Gly Cys Thr Thr Gly
231 835 840 845
232 Ala Ala Cys Thr Ala Cys Thr Ala Cys Cys Cys Ala Gly Cys Cys Thr
233 850 855 860
234 Cys Cys Thr Thr Thr Gly Thr Thr Ala Ala Cys Cys Ala Ala Gly Thr
235 865 870 875 880
236 Ala Gly Cys Thr Ala Gly Thr Cys Ala Cys Gly Thr Ala Gly Cys Cys
237 885 890 895
238 Thr Thr Cys Thr Gly Ala Gly Cys Thr Cys Gly Gly Gly Gly Cys Ala
239 900 905 910
240 Gly Ala Cys Cys Ala Cys Cys Thr Gly Gly Gly Ala Thr Cys Ala Ala
241 915 920 925
242 Ala Cys Cys Thr Cys Thr Cys Cys Thr Cys Thr Gly Cys Thr Gly Gly
243 930 935 940
244 Thr Thr Ala Cys Thr Gly Gly Cys Thr Gly Thr Gly Cys Ala Ala Cys
245 945 950 955 960
246 Thr Gly Thr Ala Ala Gly Cys Ala Ala Gly Thr Ala Ala Thr Thr Thr
247 965 970 975
248 Ala Ala Cys Cys Thr Cys Thr Cys Thr Gly Thr Gly Cys Cys Thr Cys
249 980 985 990
250 Ala Gly Thr Thr Thr Cys Cys Thr Cys Ala Thr Cys Thr Gly Thr Ala
251 995 1000 1005
252 Ala Ala Thr Thr Gly Gly Ala Gly Ala Ala Thr Ala Ala Cys Ala Cys

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,963

DATE: 05/17/2001

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

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253      1010      1015      1020
254 Cys Ala Cys Cys Thr Gly Cys Thr Thr Thr Cys Thr Gly Gly Gly Gly
255 1025      1030      1035      1040
256 Thr Thr Ala Thr Gly Ala Ala Gly Gly Gly Ala Gly Ala Ala Ala Thr
257      1045      1050      1055
258 Ala Gly Gly Thr Thr Ala Ala Cys Ala Thr Gly Thr Gly Thr Gly Cys
259      1060      1065      1070
260 Ala Gly Cys Ala Cys Thr Thr Ala Gly Ala Ala Cys Ala Cys Thr Cys
261      1075      1080      1085
262 Thr Gly Gly Cys Ala Thr Ala Thr Thr Thr Thr Ala Gly Cys Thr Gly
263      1090      1095      1100
264 Cys Ala Ala Ala Ala Thr Gly Ala Ala Thr Gly Cys Cys Ala Gly Cys
265 1105      1110      1115      1120
266 Thr Ala Thr Gly Ala Thr Thr Ala Thr Thr Thr Cys Thr Ala Thr Ala
267      1125      1130      1135
268 Cys Thr Thr Ala Gly Thr Gly Cys Gly Gly Gly Gly Cys Thr Thr Gly
269      1140      1145      1150
270 Gly Cys Ala Cys Ala Cys Thr Gly Cys Ala Thr Gly Gly Gly Cys Thr
271      1155      1160      1165
272 Cys Ala Ala Gly Thr Gly Gly Cys Ala Gly Cys Ala Gly Thr Thr Gly
273      1170      1175      1180
274 Thr Cys Gly Thr Cys Cys Thr Thr Gly Thr Gly Gly Cys Thr Cys Cys
275 1185      1190      1195      1200
276 Ala Gly Gly Cys Cys Thr Gly Gly Gly Gly Thr Cys Cys Gly Cys Cys
277      1205      1210      1215
278 Gly Thr Gly Thr Gly Cys Thr Gly Ala Gly Cys Thr Gly Gly Cys Thr
279      1220      1225      1230
280 Thr Ala Thr Thr Gly Thr Gly Cys Ala Cys Gly Thr Cys Cys Cys Thr
281      1235      1240      1245
282 Thr Thr Gly Thr Gly Ala Thr Thr Cys Ala Thr Thr Cys Ala Thr Cys
283      1250      1255      1260
284 Gly Ala Ala Gly Thr Cys Ala Cys Ala Thr Thr Ala Gly Thr Ala Gly
285 1265      1270      1275      1280
286 Cys Thr Thr Ala Gly Ala Ala Gly Thr Gly Ala Cys Cys Gly Thr Ala
287      1285      1290      1295
288 Gly Thr Gly Gly Gly Ala Gly Cys Ala Thr Thr Thr Ala Cys Gly Cys
289      1300      1305      1310
290 Cys Ala Thr Gly Gly Ala Ala Ala Thr Thr Gly Gly Cys Ala Ala Thr
291      1315      1320      1325
292 Ala Gly Gly Gly Cys Thr Thr Thr Thr Ala Ala Cys Ala Ala Ala Gly
293      1330      1335      1340
294 Gly Thr Ala Thr Thr Thr Thr Thr Gly Ala Gly Ala Gly Cys Cys Gly
295 1345      1350      1355      1360
296 Gly Thr Thr Thr Cys Cys Thr Gly Cys Ala Cys Ala Gly Ala Gly Gly
297      1365      1370      1375
298 Cys Thr Gly Gly Thr Ala Gly Thr Thr Gly Gly Gly Cys Ala Gly Gly
299      1380      1385      1390
300 Gly Thr Gly Ala Gly Cys Ala Gly Ala Thr Cys Cys Ala Gly Ala Thr
301      1395      1400      1405

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,963

DATE: 05/17/2001

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

```

302 Gly Thr Gly Thr Gly Cys Cys Ala Gly Gly Gly Ala Cys Thr Cys Gly
303      1410      1415      1420
304 Cys Ala Cys Gly Cys Ala Gly Gly Cys Ala Ala Thr Cys Thr Cys Thr
305 1425      1430      1435      1440
306 Cys Cys Ala Cys Cys Thr Cys Cys Ala Gly Thr Gly Gly Cys Cys Ala
307      1445      1450      1455
308 Thr Cys Thr Cys Ala Gly Ala Cys Cys Thr Thr Ala Gly Cys Thr Thr
309      1460      1465      1470
310 Cys Ala Thr Gly Ala Thr Ala Gly Cys Cys Ala Gly Gly Ala Ala Gly
311      1475      1480      1485
312 Cys Gly Ala Thr Gly Gly Thr Gly Thr Thr Gly Gly Ala Ala Ala Gly
313      1490      1495      1500
314 Cys Gly Cys Cys Thr Thr Gly Gly Gly Thr Cys Ala Ala Thr Gly Gly
315 1505      1510      1515      1520
316 Gly Cys Gly Ala Gly Gly Cys Ala Cys Thr Cys Ala Ala Gly Gly Ala
317      1525      1530      1535
318 Ala Ala Cys Cys Gly Ala Cys Thr Thr Gly Gly Gly Gly Cys Ala Thr
319      1540      1545      1550
320 Cys Cys Thr Gly Gly Gly Gly Thr Gly Gly Gly Gly Ala Cys Cys Gly
321      1555      1560      1565
322 Ala Gly Thr Thr Thr Gly Gly Gly Cys Ala Cys Ala Thr Ala Cys Ala
323      1570      1575      1580
324 Gly Cys Cys Cys Thr Thr Thr Gly Thr Gly Thr Gly Ala Ala Thr Thr
325 1585      1590      1595      1600
326 Thr Ala Ala Ala Ala Ala Cys Ala Gly Thr Gly Cys Cys Thr Thr Thr
327      1605      1610      1615
328 Thr Cys Cys Thr Cys Thr Ala Cys Ala Cys Ala Ala Gly Ala Thr Gly
329      1620      1625      1630
330 Cys Cys Cys Thr Thr Thr Cys Gly Thr Cys Thr Gly Gly Ala Thr
331      1635      1640      1645
332 Ala Cys Ala Gly Cys Cys Cys Cys Cys Ala Cys Cys Thr Cys Thr Gly
333      1650      1655      1660
334 Gly Gly Ala Thr Gly Cys Ala Gly Cys Cys Cys Cys Cys Ala Cys Thr
335 1665      1670      1675      1680
336 Thr Gly Cys Cys Cys Ala Cys Cys Cys Ala Gly Cys Cys Ala Thr Gly
337      1685      1690      1695
338 Cys Gly Cys Cys Thr Thr Gly Thr Gly Cys Ala Gly Thr Ala Thr Cys
339      1700      1705      1710
340 Cys Ala Ala Cys Cys Thr Gly Cys Ala Cys Ala Ala Cys Cys Thr Gly
341      1715      1720      1725
342 Thr Gly Gly Cys Ala Gly Cys Cys Thr Gly Thr Gly Gly Ala Ala Gly
343      1730      1735      1740
344 Ala Cys Cys Gly Ala Gly Gly Gly Gly Ala Thr Thr Gly Ala Thr Ala
345 1745      1750      1755      1760
346 Thr Thr Thr Cys Ala Gly Cys Ala Gly Gly Cys Cys Thr Gly Thr Gly
347      1765      1770      1775
348 Cys Cys Cys Ala Thr Thr Thr Gly Cys Ala Gly Thr Thr Cys Ala Gly
349      1780      1785      1790
350 Gly Gly Gly Cys Thr Gly Gly Ala Ala Ala Gly Cys Thr Cys Thr Cys

```

RAW SEQUENCE LISTING

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```

351          1795          1800          1805
352 Cys Thr Cys Thr Gly Gly Ala Gly Ala Gly Gly Gly Gly Ala Gly Gly
353          1810          1815          1820
354 Gly Ala Thr Thr Cys Cys Thr Gly Cys Ala Ala Gly Gly Gly Thr Gly
355 1825          1830          1835          1840
356 Ala Gly Gly Ala Gly Ala Thr Cys Ala Gly Ala Gly Ala Gly Gly Cys
357          1845          1850          1855
358 Cys Thr Thr Cys Ala Gly Ala Gly Ala Gly Cys Ala Gly Gly Thr Gly
359          1860          1865          1870
360 Gly Cys Ala Cys Thr Thr Gly Ala Gly Cys Cys Ala Gly Ala Cys Cys
361          1875          1880          1885
362 Cys Thr Gly Ala Ala Ala Cys Ala Thr Ala Ala Gly Gly Gly Gly Ala
363          1890          1895          1900
364 Ala Gly Ala Gly Gly Gly Thr Gly Thr Thr Cys Thr Gly Cys Ala Gly
365 1905          1910          1915          1920
366 Ala Gly Gly Gly Gly Thr Gly Gly Cys Ala Thr Gly Ala Gly Cys Ala
367          1925          1930          1935
368 Ala Ala Gly Gly Ala Gly Thr Gly Gly Ala Gly Gly Cys Thr Gly Ala
369          1940          1945          1950
370 Thr Cys Thr Cys Ala Gly Cys Ala Gly Ala Gly Cys Thr Cys Ala Ala
371          1955          1960          1965
372 Ala Cys Thr Gly Ala Cys Gly Ala Gly Gly Gly Thr Gly Ala Cys Thr
373          1970          1975          1980
374 Gly Gly Gly Gly Thr Cys Ala Gly Gly Gly Gly Thr Thr Cys Thr Gly
375 1985          1990          1995          2000
376 Gly Gly Gly Cys Gly Gly Gly Ala Thr Thr Cys Thr Gly Gly Thr
377          2005          2010          2015
378 Gly Gly Gly Cys Gly Cys Thr Ala Ala Gly Gly Thr Ala Gly Gly Ala
379          2020          2025          2030
380 Ala Ala Gly Gly Ala Gly Gly Gly Ala Gly Gly Gly Cys Thr Gly Gly
381          2035          2040          2045
382 Gly Cys Thr Gly Thr Gly Ala Ala Gly Ala Gly Cys Cys Thr Thr Thr
383          2050          2055          2060
384 Gly Gly Gly Gly Thr Gly Ala Gly Cys Cys Thr Gly Gly Thr Gly Gly
385 2065          2070          2075          2080
386 Ala Gly Cys Cys Thr Gly Cys Gly Gly Gly Thr Thr Thr Gly Cys Thr
387          2085          2090          2095
388 Thr Ala Thr Ala Cys Ala Ala Gly Ala Gly Cys Thr Thr Gly Gly Ala
389          2100          2105          2110
390 Thr Cys Cys Ala Thr Gly Thr Cys Gly Gly Cys Cys Thr Cys Thr Thr
391          2115          2120          2125
392 Thr Cys Ala Thr Gly Ala Gly Gly Thr Cys Ala Ala Gly Ala Gly Gly
393          2130          2135          2140
394 Cys Thr Cys Cys Cys Ala Thr Ala Gly Ala Ala Ala Gly Cys Thr Cys
395 2145          2150          2155          2160
396 Thr Gly Ala Gly Thr Thr Gly Cys Cys Cys Ala Gly Ala Ala
397          2165          2170          2175
398 Cys Cys Ala Thr Ala Ala Cys Cys Cys Thr Thr Gly Gly Ala Gly Ala
399          2180          2185          2190

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,963

DATE: 05/17/2001

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

```

400 Thr Gly Gly Gly Ala Gly Gly Gly Ala Ala Gly Cys Thr Thr Gly Ala
401      2195      2200      2205
402 Gly Cys Cys Ala Gly Cys Cys Ala Thr Gly Gly Gly Thr Cys Gly Thr
403      2210      2215      2220
404 Thr Cys Cys Cys Cys Ala Thr Thr Cys Cys Ala Cys Ala Thr Cys Cys
405 2225      2230      2235      2240
406 Thr Cys Thr Ala Cys Thr Cys Cys Gly Gly Gly Cys Cys Thr Cys Thr
407      2245      2250      2255
408 Gly Gly Gly Thr Cys Thr Cys Cys Thr Gly Gly Ala Gly Gly Cys Ala
409      2260      2265      2270
410 Ala Gly Thr Ala Ala Ala Cys Ala Cys Cys Thr Ala Gly Gly Gly Cys
411      2275      2280      2285
412 Cys Thr Gly Gly Gly Ala Gly Gly Cys Ala Ala Ala Ala Thr Ala
413      2290      2295      2300
414 Thr Cys Cys Gly Gly Gly Cys Ala Gly Gly Thr Cys Ala Thr Gly Gly
415 2305      2310      2315      2320
416 Ala Gly Cys Gly Gly Ala Gly Gly Gly Ala Gly Cys Cys Cys Gly Cys
417      2325      2330      2335
418 Cys Ala Gly Ala Thr Gly Cys Ala Gly Ala Gly Cys Ala Cys Ala Gly
419      2340      2345      2350
420 Gly Thr Cys Thr Ala Ala Ala Gly Gly Thr Gly Gly Gly Thr Cys Cys
421      2355      2360      2365
422 Thr Cys Cys Thr Gly Ala Gly Gly Thr Gly Gly Cys Thr Gly Cys Ala
423      2370      2375      2380
424 Gly Gly Ala Gly Cys Ala Ala Cys Cys Cys Cys Ala Gly Gly Cys Ala
425 2385      2390      2395      2400
426 Thr Thr Gly Gly Gly Cys Thr Thr Gly Gly Ala Gly Cys Ala Thr Gly
427      2405      2410      2415
428 Cys Gly Gly Thr Gly Thr Gly Gly Ala Cys Ala Thr Ala Gly Cys Cys
429      2420      2425      2430
430 Thr Thr Cys Cys Cys Thr Thr Cys Thr Thr Cys Cys Cys Ala Gly Gly
431      2435      2440      2445
432 Ala Gly Gly Gly Cys Thr Gly Ala Ala Thr Gly Gly Cys Cys Ala Cys
433      2450      2455      2460
434 Ala Gly Ala Ala Cys Cys Ala Cys Cys Cys Cys Cys Thr Gly Cys Cys
435 2465      2470      2475      2480
436 Cys Cys Ala Gly Gly Cys Thr Thr Ala Ala Gly Ala Ala Ala Thr Gly
437      2485      2490      2495
438 Cys Ala Thr Gly Cys Thr Ala Gly Thr Gly Cys Cys Thr Thr Cys Cys
439      2500      2505      2510
440 Cys Cys Ala Thr Gly Thr Cys Thr Thr Ala Thr Cys Cys Thr Ala Gly
441      2515      2520      2525
442 Ala Ala Thr Cys Ala Cys Ala Gly Gly Cys Thr Cys Cys Gly Gly Gly
443      2530      2535      2540
444 Ala Ala Ala Gly Cys Cys Ala Gly Ala Thr Gly Gly Ala Thr Gly Ala
445 2545      2550      2555      2560
446 Ala Cys Cys Ala Gly Gly Gly Ala Ala Ala Gly Ala Ala Cys Gly Gly
447      2565      2570      2575
448 Ala Thr Thr Cys Thr Cys Ala Cys Cys Ala Thr Ala Gly Ala Thr Ala

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,963

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Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

```

449          2580          2585          2590
450 Cys Cys Ala Thr Thr Thr Thr Thr Gly Ala Gly Ala Thr Thr Thr Cys
451          2595          2600          2605
452 Ala Cys Cys Ala Thr Gly Thr Gly Cys Thr Gly Ala Gly Cys Cys Cys
453          2610          2615          2620
454 Thr Thr Thr Thr Gly Cys Ala Ala Cys Ala Ala Cys Thr Cys Thr Ala Thr
455 2625          2630          2635          2640
456 Gly Ala Ala Thr Thr Gly Gly Gly Cys Thr Cys Ala Thr Thr Thr Thr
457          2645          2650          2655
458 Gly Cys Ala Gly Ala Thr Gly Ala Gly Ala Ala Ala Ala Gly Thr Gly
459          2660          2665          2670
460 Ala Cys Thr Thr Cys Thr Ala Gly Ala Gly Ala Gly Gly Thr Thr Ala
461          2675          2680          2685
462 Ala Gly Cys Thr Ala Cys Thr Ala Gly Cys Cys Cys Ala Ala Gly Ala
463          2690          2695          2700
464 Thr Cys Ala Gly Thr Ala Gly Cys Thr Ala Gly Ala Gly Gly Cys Ala
465 2705          2710          2715          2720
466 Ala Gly Gly Cys Ala Ala Gly Gly Ala Thr Thr Cys Ala Ala Ala Thr
467          2725          2730          2735
468 Cys Cys Cys Ala Gly Gly Ala Gly Thr Cys Cys Gly Gly Thr Gly Cys
469          2740          2745          2750
470 Thr Thr Gly Cys Ala Thr Ala Ala Ala Thr Gly Ala Ala Ala Gly Gly
471          2755          2760          2765
472 Ala Thr Gly Ala Ala Thr Gly Ala Ala Cys Gly Gly Ala Thr Ala Thr
473          2770          2775          2780
474 Thr Gly Ala Gly Thr Gly Ala Gly Thr Gly Ala Gly Thr Gly Gly Ala
475 2785          2790          2795          2800
476 Thr Gly Ala Ala Gly Gly Ala Ala Gly Gly Ala Gly Thr Ala Ala Ala
477          2805          2810          2815
478 Gly Gly Ala Gly Ala Gly Gly Gly Cys Ala Thr Gly Ala Ala Thr Gly
479          2820          2825          2830
480 Ala Ala Thr Gly Ala Gly Ala Gly Gly Gly Thr Ala Gly Ala Ala Cys
481          2835          2840          2845
482 Thr Cys Cys Ala Ala Gly Ala Cys Cys Cys Cys Thr Thr Ala Gly Ala
483          2850          2855          2860
484 Ala Cys Cys Thr Cys Gly Thr Cys Thr Gly Ala Thr Gly Thr Thr Cys
485 2865          2870          2875          2880
486 Cys Cys Ala Thr Thr Thr Thr Ala Cys Ala Gly Ala Cys Ala Gly Ala
487          2885          2890          2895
488 Ala Ala Ala Cys Thr Gly Ala Gly Thr Cys Cys Thr Ala Gly Ala Cys
489          2900          2905          2910
490 Ala Gly Ala Gly Gly Cys Cys Thr Ala Gly Ala Gly Gly Ala Gly Gly
491          2915          2920          2925
492 Cys Cys Ala Ala Gly Ala Gly Gly Thr Gly Gly Thr Gly Gly Gly Gly
493          2930          2935          2940
494 Cys Cys Ala Gly Gly Thr Cys Gly Gly Gly Gly Gly Gly Gly Cys Cys
495 2945          2950          2955          2960
496 Cys Thr Gly Ala Thr Gly Cys Cys Thr Gly Cys Thr Thr Cys Thr Cys
497          2965          2970          2975

```

RAW SEQUENCE LISTING

DATE: 05/17/2001

PATENT APPLICATION: US/09/778,963

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

```

498 Thr Cys Gly Cys Thr Thr Thr Gly Thr Thr Gly Cys Ala Gly Cys Cys
499          2980          2985          2990
500 Cys Cys Gly Ala Gly Cys Cys Ala Thr Gly Ala Thr Gly Ala Ala Gly
501          2995          3000          3005
502 Ala Cys Thr Thr Thr Gly Thr Cys Cys Ala Gly Cys Gly Gly Gly Ala
503          3010          3015          3020
504 Ala Cys Thr Gly Cys Ala Cys Gly Cys Thr Cys Ala Gly Thr Gly Thr
505 3025          3030          3035          3040
506 Gly Cys Cys Cys Gly Cys Cys Ala Ala Ala Ala Ala Cys Thr Cys Ala
507          3045          3050          3055
508 Thr Ala Cys Cys Gly Cys Ala Thr Gly Gly Thr Gly Gly Thr Gly Cys
509          3060          3065          3070
510 Thr Gly Gly Gly Thr Gly Cys Cys Thr Cys Thr Cys Gly Gly Gly Thr
511          3075          3080          3085
512 Gly Gly Gly Cys Ala Ala Gly Ala Gly Cys Thr Cys Cys Ala Thr Cys
513          3090          3095          3100
514 Gly Thr Gly Thr Cys Thr Cys Gly Cys Thr Thr Cys Cys Thr Cys Ala
515 3105          3110          3115          3120
516 Ala Thr Gly Gly Cys Cys Gly Cys Thr Thr Thr Gly Ala Gly Gly Ala
517          3125          3130          3135
518 Cys Cys Ala Gly Thr Ala Cys Ala Cys Ala Cys Cys Cys Ala Cys Cys
519          3140          3145          3150
520 Ala Thr Cys Gly Ala Gly Gly Ala Cys Thr Thr Cys Cys Ala Cys Cys
521          3155          3160          3165
522 Gly Thr Ala Ala Gly Gly Thr Ala Thr Ala Cys Ala Ala Cys Ala Thr
523          3170          3175          3180
524 Cys Cys Gly Cys Gly Gly Cys Gly Ala Cys Ala Thr Gly Thr Ala Cys
525 3185          3190          3195          3200
526 Cys Ala Gly Cys Thr Cys Gly Ala Cys Ala Thr Cys Cys Thr Gly Gly
527          3205          3210          3215
528 Ala Thr Ala Cys Cys Thr Cys Thr Gly Gly Cys Ala Ala Cys Cys Ala
529          3220          3225          3230
530 Cys Cys Cys Cys Thr Thr Cys Cys Cys Gly Cys Cys Ala Thr Gly
531          3235          3240          3245
532 Cys Gly Cys Ala Gly Gly Cys Thr Gly Thr Cys Cys Ala Thr Cys Cys
533          3250          3255          3260
534 Thr Cys Ala Cys Ala Gly Gly Thr Gly Ala Gly Gly Cys Cys Cys Ala
535 3265          3270          3275          3280
536 Cys Thr Gly Gly Thr Gly Cys Cys Thr Gly Gly Gly Cys Thr Gly Gly
537          3285          3290          3295
538 Gly Gly Cys Gly Gly Cys Ala Gly Gly Gly Cys Cys Ala Gly Gly Gly
539          3300          3305          3310
540 Cys Ala Thr Gly Gly Gly Thr Gly Cys Gly Gly Ala Gly Thr Gly Thr
541          3315          3320          3325
542 Gly Cys Thr Gly Gly Gly Cys Ala Cys Thr Thr Gly Gly Cys Ala Gly
543          3330          3335          3340
544 Thr Thr Thr Gly Cys Ala Thr Ala Gly Ala Cys Thr Thr Gly Cys Ala
545 3345          3350          3355          3360
546 Thr Ala Gly Cys Cys Ala Thr Cys Gly Thr Cys Thr Gly Ala Gly Ala

```


RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,963

DATE: 05/17/2001

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Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

```

547          3365          3370          3375
548 Cys Ala Gly Gly Cys Gly Thr Cys Ala Thr Cys Cys Cys Thr Gly Cys
549          3380          3385          3390
550 Ala Cys Ala Ala Thr Gly Ala Gly Gly Cys Thr Cys Ala Gly Ala Gly
551          3395          3400          3405
552 Ala Gly Gly Thr Thr Thr Thr Gly Cys Cys Ala Thr Gly Thr Gly Cys
553          3410          3415          3420
554 Thr Gly Gly Ala Ala Ala Thr Ala Gly Thr Gly Ala Thr Gly Ala Ala
555 3425          3430          3435          3440
556 Gly Thr Cys Gly Gly Gly Gly Gly Cys Cys Cys Cys Gly Ala Thr Thr
557          3445          3450          3455
558 Cys Cys Ala Thr Thr Cys Thr Gly Thr Thr Ala Gly Ala Cys Thr Cys
559          3460          3465          3470
560 Cys Ala Gly Ala Thr Cys Gly Ala Thr Thr Ala Cys Thr Cys Ala Thr
561          3475          3480          3485
562 Gly Gly Cys Thr Gly Thr Cys Gly Gly Gly Gly Cys Cys Gly Cys Cys
563          3490          3495          3500
564 Thr Thr Cys Cys Ala Gly Ala Thr Cys Ala Gly Gly Ala Gly Cys Thr
565 3505          3510          3515          3520
566 Gly Ala Thr Ala Cys Cys Ala Gly Cys Ala Thr Gly Cys Cys Cys Cys
567          3525          3530          3535
568 Ala Gly Gly Gly Ala Thr Ala Thr Thr Cys Cys Thr Thr Thr Cys Thr
569          3540          3545          3550
570 Ala Gly Gly Gly Ala Ala Cys Ala Gly Ala Ala Thr Gly Ala Thr Gly
571          3555          3560          3565
572 Cys Cys Cys Thr Gly Gly Cys Thr Gly Cys Thr Gly Cys Thr Thr Thr
573          3570          3575          3580
574 Cys Cys Thr Thr Cys Thr Cys Cys Gly Gly Ala Ala Gly Ala Thr Gly
575 3585          3590          3595          3600
576 Ala Cys Cys Cys Ala Cys Cys Ala Gly Ala Gly Cys Thr Cys Cys Ala
577          3605          3610          3615
578 Gly Gly Gly Cys Cys Cys Ala Ala Gly Gly Thr Cys Ala Gly Thr Cys
579          3620          3625          3630
580 Cys Ala Cys Gly Gly Gly Gly Cys Thr Cys Ala Gly Gly Thr Cys Thr
581          3635          3640          3645
582 Cys Cys Cys Ala Cys Ala Cys Cys Cys Cys Ala Gly Gly Cys Cys Thr
583          3650          3655          3660
584 Thr Thr Gly Cys Cys Ala Cys Cys Thr Cys Cys Thr Ala Gly Ala Gly
585 3665          3670          3675          3680
586 Ala Gly Gly Thr Ala Ala Gly Gly Gly Cys Ala Gly Gly Ala Cys Cys
587          3685          3690          3695
588 Cys Ala Gly Gly Cys Ala Gly Thr Gly Ala Thr Cys Ala Cys Cys Ala
589          3700          3705          3710
590 Ala Ala Gly Gly Gly Ala Ala Gly Gly Gly Gly Gly Cys Thr Thr Gly
591          3715          3720          3725
592 Gly Thr Cys Ala Thr Gly Gly Thr Cys Ala Thr Ala Gly Thr Gly Ala
593          3730          3735          3740
594 Thr Gly Gly Thr Gly Ala Thr Gly Gly Cys Ala Cys Thr Ala Gly Cys
595 3745          3750          3755          3760

```

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```

596 Thr Gly Ala Cys Ala Cys Thr Thr Ala Thr Cys Ala Gly Ala Ala Gly
597          3765          3770          3775
598 Cys Thr Ala Thr Gly Gly Gly Cys Cys Thr Gly Gly Cys Cys Cys Thr
599          3780          3785          3790
600 Gly Thr Thr Cys Thr Thr Ala Gly Ala Gly Cys Thr Thr Gly Gly Cys
601          3795          3800          3805
602 Ala Thr Gly Thr Ala Gly Thr Thr Thr Thr Thr Thr Thr Gly Ala
603          3810          3815          3820
604 Ala Ala Cys Ala Gly Ala Gly Thr Cys Thr Cys Gly Cys Thr Cys Thr
605 3825          3830          3835          3840
606 Gly Thr Cys Ala Cys Cys Cys Ala Gly Gly Cys Thr Gly Gly Ala Gly
607          3845          3850          3855
608 Thr Gly Cys Ala Gly Thr Gly Gly Cys Gly Cys Gly Ala Thr Cys Thr
609          3860          3865          3870
610 Cys Gly Gly Cys Thr Cys Ala Cys Thr Gly Cys Ala Ala Cys Cys Thr
611          3875          3880          3885
612 Cys Thr Gly Cys Cys Thr Cys Cys Cys Gly Gly Gly Thr Thr Cys Ala
613          3890          3895          3900
614 Ala Gly Cys Gly Ala Thr Thr Cys Thr Cys Cys Thr Gly Cys Cys Thr
615 3905          3910          3915          3920
616 Cys Ala Gly Thr Cys Cys Cys Cys Ala Ala Gly Thr Ala Gly Cys
617          3925          3930          3935
618 Thr Gly Gly Gly Ala Cys Thr Ala Cys Ala Gly Gly Cys Ala Cys Gly
619          3940          3945          3950
620 Thr Gly Cys Cys Ala Cys Cys Ala Thr Gly Cys Cys Cys Gly Gly Cys
621          3955          3960          3965
622 Thr Ala Ala Thr Thr Thr Thr Thr Thr Gly Thr Ala Thr Thr Thr
623          3970          3975          3980
624 Thr Ala Cys Thr Ala Gly Ala Gly Ala Cys Gly Gly Gly Ala Thr Thr
625 3985          3990          3995          4000
626 Thr Cys Ala Cys Cys Ala Thr Gly Thr Thr Ala Gly Cys Cys Ala Gly
627          4005          4010          4015
628 Gly Ala Thr Gly Gly Thr Cys Thr Cys Gly Ala Thr Cys Thr Cys Cys
629          4020          4025          4030
630 Thr Gly Ala Cys Cys Thr Cys Gly Thr Gly Ala Thr Cys Thr Gly Cys
631          4035          4040          4045
632 Cys Thr Ala Cys Cys Thr Cys Ala Gly Cys Cys Thr Cys Cys Cys Ala
633          4050          4055          4060
634 Ala Ala Gly Thr Gly Cys Thr Gly Ala Gly Ala Thr Thr Ala Cys Ala
635 4065          4070          4075          4080
636 Gly Gly Cys Gly Thr Cys Ala Gly Cys Cys Ala Cys Cys Gly Cys Gly
637          4085          4090          4095
638 Gly Cys Cys Ala Gly Cys Cys Ala Gly Cys Ala Thr Gly Thr Ala Gly
639          4100          4105          4110
640 Thr Thr Ala Thr Thr Thr Ala Ala Cys Cys Cys Thr Cys Ala Cys Ala
641          4115          4120          4125
642 Gly Thr Ala Ala Ala Thr Ala Gly Thr Thr Ala Thr Thr Cys Ala Thr
643          4130          4135          4140
644 Thr Cys Cys Cys Thr Thr Thr Thr Thr Ala Cys Ala Gly Gly Thr Gly

```

RAW SEQUENCE LISTING

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Input Set : A:\Seqlist.txt

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```

645 4145          4150          4155          4160
646 Gly Gly Gly Ala Ala Ala Cys Thr Gly Ala Ala Gly Cys Cys Cys Ala
647          4165          4170          4175
648 Gly Ala Gly Ala Gly Gly Thr Thr Ala Ala Gly Thr Ala Ala Cys Thr
649          4180          4185          4190
650 Cys Ala Cys Thr Cys Cys Ala Gly Thr Gly Gly Thr Ala Gly Cys Ala
651          4195          4200          4205
652 Cys Ala Gly Cys Thr Cys Gly Thr Ala Ala Ala Gly Gly Cys Ala Gly
653          4210          4215          4220
654 Thr Cys Thr Gly Cys Thr Thr Thr Thr Gly Thr Gly Cys Thr Thr Thr
655 4225          4230          4235          4240
656 Cys Ala Gly Ala Cys Ala Ala Ala Gly Cys Cys Ala Thr Ala Cys Cys
657          4245          4250          4255
658 Ala Cys Ala Gly Cys Cys Thr Cys Thr Cys Ala Gly Cys Cys Cys Thr
659          4260          4265          4270
660 Gly Cys Thr Gly Gly Gly Ala Ala Gly Gly Gly Thr Gly Ala Gly Gly
661          4275          4280          4285
662 Ala Gly Gly Gly Ala Cys Ala Gly Gly Gly Ala Gly Gly Thr Thr Gly
663          4290          4295          4300
664 Gly Gly Gly Gly Gly Ala Ala Gly Ala Ala Gly Gly Gly Thr Gly
665 4305          4310          4315          4320
666 Ala Gly Thr Gly Gly Ala Gly Cys Thr Gly Ala Gly Gly Gly Gly Cys
667          4325          4330          4335
668 Thr Gly Thr Gly Cys Cys Cys Thr Thr Gly Thr Thr Thr Ala Cys Ala
669          4340          4345          4350
670 Cys Thr Gly Cys Ala Thr Thr Ala Gly Cys Ala Thr Gly Gly Thr Ala
671          4355          4360          4365
672 Gly Cys Thr Ala Ala Gly Ala Gly Gly Ala Cys Ala Ala Gly Cys Cys
673          4370          4375          4380
674 Cys Gly Gly Gly Ala Cys Cys Cys Ala Gly Cys Ala Cys Cys Thr Gly
675 4385          4390          4395          4400
676 Gly Gly Thr Gly Thr Gly Ala Gly Cys Cys Cys Thr Gly Gly Thr Thr
677          4405          4410          4415
678 Cys Cys Gly Cys Thr Gly Cys Thr Thr Cys Cys Thr Gly Gly Cys Thr
679          4420          4425          4430
680 Thr Thr Gly Thr Ala Cys Cys Thr Cys Gly Ala Gly Gly Cys Ala Ala
681          4435          4440          4445
682 Gly Gly Gly Ala Thr Thr Thr Thr Ala Thr Cys Thr Cys Cys'Thr Thr
683          4450          4455          4460
684 Gly Thr Gly Thr Cys Thr Cys Ala Gly Cys Ala Cys Thr Cys Thr Cys
685 4465          4470          4475          4480
686 Ala Thr Cys Thr Gly Thr Ala Ala Gly Ala Cys Thr Gly Cys Ala Cys
687          4485          4490          4495
688 Cys Ala Cys Ala Thr Cys Ala Ala Cys Ala Cys Thr Cys Ala Thr Cys
689          4500          4505          4510
690 Cys Thr Ala Ala Ala Gly Gly Gly Ala Cys Thr Gly Thr Gly Ala Gly
691          4515          4520          4525
692 Ala Cys Thr Thr Ala Ala Ala Thr Gly Ala Ala Thr Gly Ala Ala Thr
693          4530          4535          4540

```

RAW SEQUENCE LISTING

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Input Set : A:\Seqlist.txt

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```

694 Ala Thr Ala Thr Gly Thr Ala Ala Gly Gly Cys Gly Cys Thr Thr Gly
695 4545 4550 4555 4560
696 Gly Thr Gly Ala Gly Cys Ala Gly Ala Thr Ala Gly Thr Ala Ala Ala
697 4565 4570 4575
698 Thr Gly Cys Ala Cys Ala Ala Thr Ala Ala Ala Thr Cys Cys Cys Cys
699 4580 4585 4590
700 Ala Ala Gly Thr Cys Thr Thr Cys Thr Gly Thr Thr Gly Ala Gly Thr
701 4595 4600 4605
702 Cys Ala Gly Cys Ala Thr Thr Thr Gly Cys Ala Ala Gly Thr Gly Gly
703 4610 4615 4620
704 Gly Cys Cys Thr Gly Cys Thr Ala Cys Gly Gly Gly Thr Thr Ala Cys
705 4625 4630 4635 4640
706 Ala Cys Gly Ala Thr Cys Ala Thr Thr Thr Cys Cys Cys Ala Ala Gly
707 4645 4650 4655
708 Thr Cys Ala Cys Gly Cys Cys Cys Cys Thr Gly Ala Ala Gly Thr Thr
709 4660 4665 4670
710 Gly Cys Thr Gly Ala Gly Cys Ala Gly Gly Gly Ala Thr Ala Ala Gly
711 4675 4680 4685
712 Gly Gly Ala Ala Gly Gly Ala Gly Thr Gly Ala Gly Cys Ala Gly Gly
713 4690 4695 4700
714 Cys Ala Ala Cys Thr Cys Thr Cys Thr Ala Gly Gly Cys Ala Thr Cys
715 4705 4710 4715 4720
716 Ala Thr Thr Cys Ala Gly Ala Thr Ala Ala Cys Cys Cys Cys Cys Cys
717 4725 4730 4735
718 Ala Ala Cys Thr Gly Ala Gly Gly Thr Ala Cys Thr Thr Cys Thr Ala
719 4740 4745 4750
720 Thr Ala Cys Ala Gly Ala Gly Ala Ala Cys Cys Cys Ala Thr Gly
721 4755 4760 4765
722 Cys Cys Ala Cys Thr Cys Cys Cys Ala Gly Cys Cys Cys Thr Gly Cys
723 4770 4775 4780
724 Thr Gly Cys Cys Gly Cys Cys Thr Thr Gly Ala Gly Gly Cys Cys Ala
725 4785 4790 4795 4800
726 Ala Gly Ala Cys Thr Gly Ala Gly Gly Cys Thr Gly Cys Gly Gly Gly
727 4805 4810 4815
728 Gly Thr Gly Gly Cys Cys Cys Cys Thr Cys Cys Thr Thr Gly Ala Gly
729 4820 4825 4830
730 Thr Gly Cys Thr Thr Thr Cys Thr Cys Thr Thr Cys Cys Ala Gly Gly
731 4835 4840 4845
732 Cys Thr Gly Gly Cys Thr Thr Thr Cys Cys Gly Ala Gly Cys Ala
733 4850 4855 4860
734 Thr Cys Thr Gly Ala Cys Cys Cys Ala Gly Ala Cys Ala Gly Cys Ala
735 4865 4870 4875 4880
736 Gly Thr Cys Ala Ala Gly Thr Thr Cys Thr Cys Cys Gly Cys Thr Cys
737 4885 4890 4895
738 Cys Ala Cys Cys Cys Cys Gly Ala Gly Thr Thr Thr Thr Gly Gly Ala
739 4900 4905 4910
740 Gly Ala Ala Gly Gly Gly Cys Ala Thr Gly Thr Ala Gly Ala Thr
741 4915 4920 4925
742 Ala Gly Gly Ala Gly Ala Gly Cys Cys Cys Thr Gly Gly Gly Thr Cys

```

RAW SEQUENCE LISTING

DATE: 05/17/2001

PATENT APPLICATION: US/09/778,963

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

```

743      4930      4935      4940
744 Gly Ala Cys Cys Thr Gly Thr Gly Thr Thr Cys Gly Ala Ala Thr Cys
745 4945      4950      4955      4960
746 Cys Thr Thr Gly Cys Thr Gly Gly Gly Cys Cys Thr Cys Thr Thr Gly
747      4965      4970      4975
748 Gly Cys Thr Thr Ala Ala Ala Thr Gly Thr Gly Thr Gly Ala Cys Cys
749      4980      4985      4990
750 Ala Gly Ala Gly Gly Cys Ala Cys Ala Thr Gly Cys Ala Thr Cys Cys
751      4995      5000      5005
752 Thr Gly Thr Cys Thr Gly Ala Gly Thr Cys Thr Cys Ala Gly Cys Cys
753      5010      5015      5020
754 Thr Cys Cys Cys Cys Ala Gly Cys Cys Ala Cys Ala Cys Ala Gly Thr
755 5025      5030      5035      5040
756 Gly Gly Gly Cys Thr Thr Ala Ala Cys Cys Thr Cys Ala Thr Ala Cys
757      5045      5050      5055
758 Cys Cys Cys Gly Cys Ala Gly Gly Gly Ala Gly Gly Cys Thr Gly Thr
759      5060      5065      5070
760 Gly Ala Gly Gly Ala Cys Thr Gly Cys Ala Ala Gly Ala Ala Gly Gly
761      5075      5080      5085
762 Cys Thr Thr Gly Thr Gly Gly Cys Gly Gly Gly Ala Gly Cys Thr Thr
763      5090      5095      5100
764 Cys Cys Ala Gly Cys Ala Cys Gly Thr Gly Ala Cys Gly Gly Gly Thr
765 5105      5110      5115      5120
766 Ala Thr Thr Gly Cys Ala Thr Thr Gly Gly Thr Gly Thr Cys Ala Gly
767      5125      5130      5135
768 Cys Thr Cys Cys Cys Cys Ala Gly Cys Cys Thr Thr Gly Gly Gly
769      5140      5145      5150
770 Gly Ala Gly Gly Gly Gly Ala Cys Thr Gly Gly Gly Thr Ala Cys Cys
771      5155      5160      5165
772 Cys Gly Cys Thr Gly Cys Ala Ala Thr Gly Ala Ala Thr Ala Ala Gly
773      5170      5175      5180
774 Gly Cys Thr Ala Ala Thr Gly Ala Cys Ala Gly Ala Gly Gly Ala
775 5185      5190      5195      5200
776 Ala Gly Gly Ala Gly Ala Gly Gly Gly Gly Ala Gly Ala Thr Gly Thr
777      5205      5210      5215
778 Ala Gly Ala Gly Ala Gly Gly Ala Ala Gly Cys Ala Cys Ala Thr Gly
779      5220      5225      5230
780 Cys Ala Thr Ala Thr Thr Thr Cys Ala Gly Cys Ala Thr Thr Ala
781      5235      5240      5245
782 Ala Thr Thr Thr Cys Ala Gly Thr Gly Ala Cys Ala Cys Ala Ala
783      5250      5255      5260
784 Gly Thr Ala Ala Thr Ala Cys Cys Cys Ala Ala Ala Cys Ala Cys Ala
785 5265      5270      5275      5280
786 Cys Cys Cys Thr Cys Cys Thr Gly Cys Ala Ala Ala Cys Gly Cys Thr
787      5285      5290      5295
788 Ala Cys Ala Gly Ala Thr Ala Ala Ala Gly Cys Thr Ala Ala Thr Gly
789      5300      5305      5310
790 Cys Cys Cys Cys Thr Thr Thr Gly Ala Cys Cys Cys Ala Thr Gly Thr
791      5315      5320      5325

```

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```

792 Cys Cys Cys Cys Ala Ala Thr Cys Cys Cys Ala Gly Gly Cys Thr Cys
793      5330      5335      5340
794 Cys Thr Gly Cys Cys Cys Cys Thr Gly Cys Cys Cys Cys Gly Gly Ala
795 5345      5350      5355      5360
796 Gly Gly Thr Gly Gly Cys Cys Ala Cys Cys Cys Thr Gly Gly Cys Ala
797      5365      5370      5375
798 Gly Thr Cys Thr Gly Gly Cys Ala Thr Gly Gly Ala Gly Cys Cys Thr
799      5380      5385      5390
800 Thr Cys Cys Gly Gly Gly Cys Cys Thr Cys Cys Gly Thr Gly Ala Cys
801      5395      5400      5405
802 Thr Ala Cys Ala Cys Cys Gly Gly Cys Ala Thr Thr Cys Gly Thr Ala
803      5410      5415      5420
804 Thr Thr Thr Gly Thr Ala Thr Cys Cys Cys Cys Ala Cys Ala Ala Thr
805 5425      5430      5435      5440
806 Gly Gly Ala Gly Ala Gly Thr Ala Thr Thr Thr Thr Gly Thr Cys
807      5445      5450      5455
808 Thr Gly Thr Cys Thr Cys Thr Thr Thr Thr Thr Thr Ala Thr Gly Gly
809      5460      5465      5470
810 Cys Gly Cys Ala Thr Ala Thr Cys Ala Thr Thr Cys Thr Gly Ala Gly
811      5475      5480      5485
812 Cys Ala Cys Ala Gly Cys Thr Gly Thr Cys Thr Gly Ala Thr Gly Cys
813      5490      5495      5500
814 Thr Thr Thr Gly Thr Thr Thr Thr Thr Thr Thr Thr Cys Ala Cys Ala
815 5505      5510      5515      5520
816 Cys Ala Cys Cys Ala Ala Cys Cys Cys Gly Thr Gly Cys Cys Thr Cys
817      5525      5530      5535
818 Ala Thr Thr Thr Thr Cys Cys Ala Ala Cys Cys Thr Gly Gly Thr Gly
819      5540      5545      5550
820 Gly Ala Ala Cys Cys Thr Cys Ala Thr Thr Thr Thr Thr Thr Cys Ala
821      5555      5560      5565
822 Ala Cys Cys Thr Cys Ala Thr Thr Thr Thr Cys Cys Thr Gly Cys Thr
823      5570      5575      5580
824 Gly Cys Thr Cys Ala Gly Gly Ala Ala Ala Thr Thr Cys Thr Gly Ala
825 5585      5590      5595      5600
826 Ala Ala Gly Cys Cys Ala Thr Thr Ala Ala Thr Thr Cys Cys Ala Cys
827      5605      5610      5615
828 Thr Gly Cys Cys Ala Gly Cys Thr Cys Thr Thr Cys Thr Thr Cys Cys
829      5620      5625      5630
830 Ala Gly Cys Thr Gly Cys Cys Ala Gly Ala Cys Gly Gly Gly Cys Cys
831      5635      5640      5645
832 Gly Ala Thr Cys Thr Cys Thr Gly Ala Thr Gly Cys Thr Thr Gly Gly
833      5650      5655      5660
834 Cys Ala Thr Cys Gly Cys Ala Gly Thr Cys Thr Cys Gly Cys Ala Thr
835 5665      5670      5675      5680
836 Thr Thr Gly Ala Ala Thr Ala Thr Gly Thr Cys Ala Ala Gly Gly Cys
837      5685      5690      5695
838 Cys Ala Cys Gly Ala Gly Thr Cys Cys Thr Cys Ala Gly Gly Gly Gly
839      5700      5705      5710
840 Cys Cys Cys Cys Gly Gly Ala Thr Thr Ala Gly Cys Cys Thr Ala Ala

```

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```

841          5715          5720          5725
842 Cys Gly Gly Gly Ala Thr Gly Gly Gly Thr Thr Thr Gly Gly Cys
843          5730          5735          5740
844 Ala Gly Cys Cys Cys Ala Ala Gly Cys Ala Gly Gly Ala Ala Gly Ala
845 5745          5750          5755          5760
846 Gly Thr Thr Gly Cys Cys Ala Ala Gly Cys Thr Gly Ala Cys Gly Cys
847          5765          5770          5775
848 Thr Gly Cys Cys Thr Cys Gly Cys Ala Ala Gly Thr Gly Cys Cys Thr
849          5780          5785          5790
850 Thr Thr Cys Ala Gly Ala Ala Gly Ala Gly Cys Cys Cys Ala Cys Ala
851          5795          5800          5805
852 Cys Thr Gly Cys Ala Gly Thr Thr Cys Cys Cys Thr Cys Cys Ala Thr
853          5810          5815          5820
854 Cys Ala Cys Cys Thr Cys Cys Cys Ala Thr Cys Cys Ala Thr Thr Cys
855 5825          5830          5835          5840
856 Ala Gly Gly Cys Thr Thr Cys Cys Thr Thr Gly Gly Thr Thr Ala Ala
857          5845          5850          5855
858 Cys Ala Cys Thr Gly Ala Cys Thr Gly Thr Gly Thr Gly Cys Cys Ala
859          5860          5865          5870
860 Gly Gly Cys Cys Cys Thr Gly Gly Gly Gly Ala Gly Ala Cys Cys Ala
861          5875          5880          5885
862 Gly Gly Ala Cys Gly Ala Gly Thr Gly Gly Gly Thr Gly Ala Thr Gly
863          5890          5895          5900
864 Gly Ala Ala Cys Cys Cys Thr Thr Cys Thr Cys Thr Gly Thr Gly Cys
865 5905          5910          5915          5920
866 Cys Cys Gly Ala Gly Cys Thr Gly Thr Thr Thr Gly Gly Ala Gly Cys
867          5925          5930          5935
868 Ala Cys Ala Cys Cys Thr Thr Thr Gly Ala Thr Cys Thr Gly Gly Ala
869          5940          5945          5950
870 Cys Ala Cys Cys Ala Thr Thr Cys Thr Gly Ala Ala Thr Gly Thr Gly
871          5955          5960          5965
872 Cys Cys Ala Thr Gly Thr Gly Cys Cys Ala Thr Thr Ala Ala Ala Thr
873          5970          5975          5980
874 Gly Gly Gly Gly Gly Thr Ala Ala Ala Thr Gly Ala Thr Gly Thr Gly
875 5985          5990          5995          6000
876 Cys Thr Cys Thr Gly Gly Gly Gly Gly Thr Gly Cys Ala Gly Ala Gly
877          6005          6010          6015
878 Gly Ala Ala Gly Gly Thr Gly Gly Cys Ala Gly Cys Cys Ala Thr Thr
879          6020          6025          6030
880 Cys Thr Gly Cys Cys Ala Gly Ala Ala Gly Cys Thr Gly Gly Ala Ala
881          6035          6040          6045
882 Cys Thr Gly Gly Thr Thr Gly Cys Thr Thr Cys Thr Cys Thr Thr Cys
883          6050          6055          6060
884 Thr Cys Ala Ala Gly Ala Ala Thr Thr Thr Gly Gly Gly Cys Cys Ala
885 6065          6070          6075          6080
886 Ala Thr Thr Gly Cys Thr Gly Ala Thr Thr Cys Cys Thr Cys Thr Gly
887          6085          6090          6095
888 Gly Gly Cys Cys Thr Cys Ala Gly Thr Thr Thr Cys Cys Thr Cys Ala
889          6100          6105          6110

```

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Input Set : A:\Seqlist.txt

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```

890 Thr Cys Thr Gly Thr Gly Ala Gly Ala Cys Ala Gly Gly Gly Ala Thr,
891      6115      6120      6125
892 Cys Thr Thr Gly Thr Cys Ala Cys Ala Cys Cys Ala Cys Ala Ala Gly
893      6130      6135      6140
894 Gly Cys Thr Ala Thr Cys Ala Ala Gly Ala Gly Thr Thr Thr Gly Ala
895 6145      6150      6155      6160
896 Gly Cys Ala Ala Ala Ala Gly Thr Gly Gly Thr Thr Gly Gly Ala Cys
897      6165      6170      6175
898 Gly Cys Ala Gly Thr Gly Gly Cys Thr Cys Ala Thr Gly Cys Cys Thr
899      6180      6185      6190
900 Gly Thr Ala Ala Thr Cys Cys Cys Ala Gly Cys Thr Cys Thr Thr Thr
901      6195      6200      6205
902 Gly Gly Gly Ala Gly Gly Cys Cys Gly Ala Gly Gly Thr Gly Gly Gly
903      6210      6215      6220
904 Cys Ala Gly Ala Thr Cys Thr Cys Thr Thr Gly Ala Gly Gly Thr Cys
905 6225      6230      6235      6240
906 Ala Gly Gly Ala Gly Thr Thr Cys Ala Ala Gly Ala Cys Cys Ala Gly
907      6245      6250      6255
908 Cys Cys Thr Gly Gly Cys Thr Ala Ala Cys Ala Cys Ala Gly Thr Gly
909      6260      6265      6270
910 Ala Ala Ala Cys Ala Cys Cys Gly Thr Cys Thr Cys Thr Ala Cys Thr
911      6275      6280      6285
912 Ala Ala Ala Ala Ala Ala Thr Ala Cys Ala Ala Ala Ala Ala Thr
913      6290      6295      6300
914 Thr Ala Gly Cys Cys Ala Gly Gly Thr Gly Thr Gly Gly Thr Gly Ala
915 6305      6310      6315      6320
916 Thr Gly Gly Gly Cys Ala Cys Cys Thr Gly Thr Ala Ala Thr Cys Cys
917      6325      6330      6335
918 Cys Ala Gly Thr Thr Ala Cys Thr Cys Gly Gly Gly Ala Gly Gly Cys
919      6340      6345      6350
920 Thr Gly Ala Gly Gly Cys Ala Gly Gly Ala Gly Ala Ala Thr Cys Thr
921      6355      6360      6365
922 Cys Thr Thr Gly Ala Ala Cys Cys Cys Ala Gly Gly Ala Gly Gly Thr
923      6370      6375      6380
924 Gly Gly Ala Gly Gly Thr Thr Gly Cys Ala Gly Thr Gly Ala Gly Cys
925 6385      6390      6395      6400
926 Thr Gly Ala Gly Ala Thr Cys Thr Thr Gly Cys Cys Ala Thr Thr Gly
927      6405      6410      6415
928 Cys Ala Thr Thr Cys Cys Ala Gly Gly Cys Thr Gly Gly Gly Cys Ala
929      6420      6425      6430
930 Ala Cys Ala Ala Gly Ala Gly Thr Gly Ala Ala Ala Cys Thr Cys Thr
931      6435      6440      6445
932 Gly Thr Cys Thr Cys Ala Gly Ala Ala Ala Thr Ala Ala Ala Thr
933      6450      6455      6460
934 Ala Ala Ala Thr Ala Ala Ala Thr Ala Ala Thr Ala Ala Ala Ala
935 6465      6470      6475      6480
936 Ala Ala Thr Ala Gly Cys Thr Ala Gly Gly Cys Ala Thr Gly Gly Thr
937      6485      6490      6495
938 Gly Ala Cys Ala Gly Gly Cys Gly Cys Cys Thr Gly Thr Ala Ala Thr

```


RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/778,963

DATE: 05/17/2001

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

```

939          6500          6505          6510
940 Cys Cys Cys Ala Gly Cys Thr Gly Cys Thr Cys Cys Ala Gly Ala Gly
941          6515          6520          6525
942 Gly Cys Thr Gly Ala Gly Gly Cys Ala Gly Gly Ala Gly Ala Ala Thr
943          6530          6535          6540
944 Cys Gly Cys Thr Thr Ala Ala Ala Cys Cys Cys Ala Gly Gly Ala Gly
945 6545          6550          6555          6560
946 Gly Thr Gly Gly Ala Ala Gly Thr Thr Gly Cys Ala Gly Thr Gly Ala
947          6565          6570          6575
948 Gly Cys Cys Ala Ala Gly Ala Thr Cys Ala Cys Ala Cys Cys Ala Cys
949          6580          6585          6590
950 Thr Gly Cys Ala Cys Thr Cys Cys Ala Gly Cys Cys Thr Gly Gly Gly
951          6595          6600          6605
952 Cys Cys Ala Cys Ala Gly Ala Gly Ala Ala Ala Gly Ala Cys Thr Cys
953          6610          6615          6620
954 Cys Ala Thr Cys Thr Cys Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
955 6625          6630          6635          6640
956 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly
957          6645          6650          6655
958 Thr Thr Thr Ala Ala Gly Cys Ala Ala Ala Ala Gly Thr Gly Ala Gly
959          6660          6665          6670
960 Gly Ala Ala Gly Gly Thr Gly Cys Thr Thr Ala Thr Thr Ala Ala Ala
961          6675          6680          6685
962 Ala Gly Cys Thr Gly Gly Ala Ala Ala Thr Cys Ala Gly Gly Ala Thr
963          6690          6695          6700
964 Gly Gly Ala Gly Gly Thr Ala Cys Cys Ala Gly Thr Cys Cys Ala Gly
965 6705          6710          6715          6720
966 Ala Cys Ala Gly Cys Cys Thr Cys Cys Cys Cys Ala Cys Cys Ala Cys
967          6725          6730          6735
968 Cys Cys Cys Ala Cys Cys Gly Thr Cys Thr Cys Cys Ala Cys Ala Gly
969          6740          6745          6750
970 Cys Ala Gly Cys Cys Cys Cys Thr Gly Thr Thr Thr Cys Ala Gly Ala
971          6755          6760          6765
972 Thr Thr Cys Ala Cys Ala Ala Gly Cys Cys Thr Gly Cys Cys Thr Thr
973          6770          6775          6780
974 Gly Ala Gly Thr Gly Ala Thr Gly Cys Ala Gly Thr Gly Ala Gly Thr
975 6785          6790          6795          6800
976 Thr Ala Thr Cys Cys Thr Gly Gly Ala Gly Gly Cys Ala Gly Thr Gly
977          6805          6810          6815
978 Thr Gly Gly Gly Cys Cys Thr Thr Gly Ala Gly Gly Cys Cys Ala
979          6820          6825          6830
980 Gly Cys Ala Cys Thr Cys Ala Cys Thr Thr Thr Thr Cys Ala Thr
981          6835          6840          6845
982 Cys Cys Thr Ala Thr Gly Ala Thr Thr Thr Ala Thr Thr Thr Gly Ala
983          6850          6855          6860
984 Gly Ala Ala Gly Cys Ala Gly Ala Gly Ala Gly Cys Ala Cys Cys Thr
985 6865          6870          6875          6880
986 Ala Cys Cys Gly Gly Gly Thr Gly Cys Cys Ala Gly Gly Ala Ala Cys
987          6885          6890          6895

```

RAW SEQUENCE LISTING

DATE: 05/17/2001

PATENT APPLICATION: US/09/778,963

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Input Set : A:\Seqlist.txt

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```

988 Gly Ala Gly Cys Thr Ala Gly Gly Thr Gly Ala Gly Ala Ala Cys Ala
989          6900          6905          6910
990 Gly Ala Ala Thr Cys Ala Gly Gly Thr Ala Gly Ala Ala Ala Thr Cys
991          6915          6920          6925
992 Thr Cys Ala Gly Cys Cys Thr Ala Gly Cys Cys Ala Cys Ala Cys Gly
993          6930          6935          6940
994 Gly Ala Ala Gly Cys Thr Gly Thr Gly Thr Gly Ala Thr Cys Thr Thr
995 6945          6950          6955          6960
996 Gly Gly Gly Cys Ala Gly Gly Cys Thr Gly Cys Ala Thr Ala Cys Cys
997          6965          6970          6975
998 Cys Thr Thr Thr Cys Thr Gly Ala Gly Cys Cys Thr Cys Ala Gly Thr
999          6980          6985          6990
1000 Thr Thr Gly Cys Thr Cys Ala Cys Cys Thr Gly Thr Ala Ala Thr Gly
1001          6995          7000          7005
1002 Cys Ala Ala Ala Gly Gly Thr Ala Ala Cys Ala Ala Ala Thr Cys
1003          7010          7015          7020
1004 Thr Thr Gly Ala Cys Ala Gly Ala Gly Gly Cys Ala Thr Ala Gly Thr
1005 7025          7030          7035          7040
1006 Gly Ala Gly Gly Ala Ala Thr Cys Ala Ala Gly Ala Gly Ala Ala Cys
1007          7045          7050          7055
1008 Ala Ala Cys Gly Gly Cys Cys Thr Gly Gly Ala Gly Cys Ala Thr
1009          7060          7065          7070
1010 Ala Cys Ala Cys Cys Cys Ala Gly Thr Gly Cys Thr Thr Ala Gly Cys
1011          7075          7080          7085
1012 Cys Cys Cys Cys Ala Gly Thr Ala Gly Gly Cys Cys Cys Thr Cys Ala
1013          7090          7095          7100
1014 Cys Thr Cys Thr Cys Ala Thr Cys Ala Thr Thr Ala Cys Thr Gly Ala
1015 7105          7110          7115          7120
1016 Cys Ala Cys Cys Thr Gly Ala Gly Gly Thr Cys Ala Cys Thr Gly Ala
1017          7125          7130          7135
1018 Gly Cys Ala Thr Gly Thr Gly Cys Cys Ala Cys Thr Gly Thr Cys Cys
1019          7140          7145          7150
1020 Ala Thr Thr Cys Ala Thr Thr Ala Thr Cys Thr Thr Gly Cys Ala Thr
1021          7155          7160          7165
1022 Ala Ala Cys Thr Cys Cys Cys Ala Ala Ala Ala Thr Cys Ala Thr Cys
1023          7170          7175          7180
1024 Cys Thr Gly Cys Ala Ala Gly Gly Thr Ala Ala Thr Ala Thr Thr Thr
1025 7185          7190          7195          7200
1026 Cys Ala Thr Cys Thr Thr Cys Ala Thr Gly Ala Ala Ala Cys Ala Gly
1027          7205          7210          7215
1028 Ala Cys Ala Gly Ala Gly Ala Ala Ala Cys Thr Gly Ala Gly Gly Thr
1029          7220          7225          7230
1030 Thr Ala Cys Ala Gly Ala Gly Gly Thr Thr Thr Cys Gly Thr Gly Ala
1031          7235          7240          7245
1032 Thr Cys Thr Gly Cys Cys Cys Ala Ala Gly Thr Cys Thr Gly Cys Thr
1033          7250          7255          7260
1034 Gly Gly Cys Ala Gly Cys Thr Ala Ala Gly Cys Gly Gly Ala Thr Gly
1035 7265          7270          7275          7280
1036 Ala Gly Gly Cys Cys Ala Gly Ala Thr Gly Cys Ala Ala Ala Cys Thr

```

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```

1037          7285          7290          7295
1038 Ala Gly Gly Cys Ala Thr Thr Gly Ala Gly Cys Ala Ala Gly Ala Cys
1039          7300          7305          7310
1040 Ala Gly Gly Cys Ala Gly Gly Ala Cys Cys Cys Cys Thr Gly Cys Thr
1041          7315          7320          7325
1042 Cys Thr Cys Ala Thr Ala Gly Ala Ala Ala Thr Gly Ala Thr Thr Thr
1043          7330          7335          7340
1044 Thr Thr Ala Thr Thr Ala Thr Thr Ala Thr Cys Thr Gly Ala Ala Cys
1045 7345          7350          7355          7360
1046 Ala Cys Ala Gly Thr Cys Cys Ala Cys Ala Cys Ala Ala Gly Thr Gly
1047          7365          7370          7375
1048 Ala Cys Cys Thr Ala Cys Cys Cys Cys Thr Cys Thr Cys Cys Ala Gly
1049          7380          7385          7390
1050 Cys Cys Cys Thr Gly Cys Ala Ala Ala Gly Ala Ala Ala Thr Gly Thr
1051          7395          7400          7405
1052 Gly Ala Ala Gly Thr Gly Ala Gly Thr Thr Ala Ala Cys Thr Gly Thr
1053          7410          7415          7420
1054 Ala Thr Thr Thr Gly Ala Ala Cys Cys Ala Ala Gly Thr Gly Gly Thr
1055 7425          7430          7435          7440
1056 Cys Cys Ala Cys Gly Thr Gly Thr Thr Ala Gly Cys Thr Ala Thr Gly
1057          7445          7450          7455
1058 Cys Gly Ala Cys Thr Gly Thr Gly Ala Ala Cys Ala Gly Gly Gly Gly
1059          7460          7465          7470
1060 Cys Thr Thr Cys Ala Ala Cys Cys Cys Cys Cys Thr Cys Ala Gly Cys
1061          7475          7480          7485
1062 Cys Thr Cys Ala Gly Thr Thr Thr Cys Cys Thr Gly Thr Cys Cys Thr
1063          7490          7495          7500
1064 Gly Gly Ala Ala Ala Ala Thr Ala Ala Thr Cys Gly Cys Ala Gly Gly
1065 7505          7510          7515          7520
1066 Gly Ala Gly Ala Ala Thr Ala Ala Thr Cys Gly Cys Ala Gly Cys Thr
1067          7525          7530          7535
1068 Ala Cys Cys Cys Cys Gly Ala Ala Gly Ala Gly Thr Cys Gly Cys Thr
1069          7540          7545          7550
1070 Gly Thr Gly Thr Ala Gly Gly Thr Thr Ala Ala Ala Gly Cys Ala Gly
1071          7555          7560          7565
1072 Thr Thr Ala Thr Gly Cys Cys Gly Cys Ala Thr Ala Ala Cys Thr Gly
1073          7570          7575          7580
1074 Cys Thr Thr Cys Ala Gly Gly Gly Cys Ala Cys Cys Thr Gly Thr Gly
1075 7585          7590          7595          7600
1076 Ala Cys Thr Cys Cys Cys Ala Gly Cys Thr Cys Thr Thr Ala Gly Gly
1077          7605          7610          7615
1078 Gly Cys Thr Gly Ala Thr Gly Thr Thr Cys Thr Gly Thr Gly Gly Cys
1079          7620          7625          7630
1080 Cys Ala Gly Ala Gly Gly Ala Gly Gly Gly Cys Ala Gly Gly Gly Gly
1081          7635          7640          7645
1082 Thr Thr Gly Cys Ala Gly Cys Thr Gly Gly Cys Cys Gly Gly Thr Gly
1083          7650          7655          7660
1084 Ala Ala Cys Thr Cys Ala Cys Thr Ala Cys Cys Thr Gly Gly Gly Cys
1085 7665          7670          7675          7680

```

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```

1086 Thr Cys Thr Cys Thr Cys Cys Cys Thr Gly Cys Ala Gly Gly Gly Gly
1087      7685      7690      7695
1088 Ala Thr Gly Thr Cys Thr Thr Cys Ala Thr Cys Cys Thr Gly Gly Thr
1089      7700      7705      7710
1090 Gly Thr Thr Cys Ala Gly Cys Cys Thr Gly Gly Ala Thr Ala Ala Cys
1091      7715      7720      7725
1092 Cys Gly Gly Gly Ala Gly Thr Cys Cys Thr Thr Cys Gly Ala Thr Gly
1093      7730      7735      7740
1094 Ala Gly Gly Thr Cys Ala Ala Gly Cys Gly Cys Cys Thr Thr Cys Ala
1095 7745      7750      7755      7760
1096 Gly Ala Ala Gly Cys Ala Gly Ala Thr Cys Cys Thr Gly Gly Ala Gly
1097      7765      7770      7775
1098 Gly Thr Cys Ala Ala Gly Thr Cys Cys Thr Gly Cys Cys Thr Gly Ala
1099      7780      7785      7790
1100 Ala Gly Ala Ala Cys Ala Ala Gly Ala Cys Cys Ala Ala Gly Gly Ala
1101      7795      7800      7805
1102 Gly Gly Cys Gly Gly Cys Gly Gly Ala Gly Cys Thr Gly Cys Cys Cys
1103      7810      7815      7820
1104 Ala Thr Gly Gly Thr Cys Ala Thr Cys Thr Gly Thr Gly Gly Cys Ala
1105 7825      7830      7835      7840
1106 Ala Cys Ala Ala Gly Ala Ala Cys Gly Ala Cys Cys Ala Cys Gly Gly
1107      7845      7850      7855
1108 Cys Gly Ala Gly Cys Thr Gly Thr Gly Cys Cys Gly Cys Cys Ala Gly
1109      7860      7865      7870
1110 Gly Thr Gly Cys Cys Cys Ala Cys Cys Ala Cys Cys Gly Ala Gly Gly
1111      7875      7880      7885
1112 Cys Cys Gly Ala Gly Cys Thr Gly Cys Thr Gly Gly Thr Gly Thr Cys
1113      7890      7895      7900
1114 Gly Gly Gly Cys Gly Ala Cys Gly Ala Gly Ala Ala Cys Thr Gly Cys
1115 7905      7910      7915      7920
1116 Gly Cys Cys Thr Ala Cys Thr Thr Cys Gly Ala Gly Gly Thr Gly Thr
1117      7925      7930      7935
1118 Cys Gly Gly Cys Cys Ala Ala Gly Ala Ala Gly Ala Ala Cys Ala Cys
1119      7940      7945      7950
1120 Cys Ala Ala Cys Gly Thr Gly Gly Ala Cys Gly Ala Gly Ala Thr Gly
1121      7955      7960      7965
1122 Thr Thr Cys Thr Ala Cys Gly Thr Gly Cys Thr Cys Thr Thr Cys Ala
1123      7970      7975      7980
1124 Gly Cys Ala Thr Gly Gly Cys Cys Ala Ala Gly Cys Thr Gly Cys Cys
1125 7985      7990      7995      8000
1126 Ala Cys Ala Cys Gly Ala Gly Ala Thr Gly Ala Gly Cys Cys Cys Cys
1127      8005      8010      8015
1128 Gly Cys Cys Cys Thr Gly Cys Ala Thr Cys Gly Cys Ala Ala Gly Ala
1129      8020      8025      8030
1130 Thr Cys Thr Cys Cys Gly Thr Gly Cys Ala Gly Thr Ala Cys Gly Gly
1131      8035      8040      8045
1132 Thr Gly Ala Cys Gly Cys Cys Thr Thr Cys Cys Ala Cys Cys Cys Cys
1133      8050      8055      8060
1134 Ala Gly Gly Cys Cys Cys Thr Thr Cys Thr Gly Cys Ala Thr Gly Cys

```

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Output Set: N:\CRF3\05172001\I778963.raw

```

1135 8065          8070          8075          8080
1136 Gly Cys Cys Gly Cys Gly Thr Cys Ala Ala Gly Gly Ala Gly Ala Thr
1137          8085          8090          8095
1138 Gly Gly Ala Cys Gly Cys Cys Thr Ala Thr Gly Gly Cys Ala Thr Gly
1139          8100          8105          8110
1140 Gly Thr Cys Thr Cys Gly Cys Cys Cys Thr Thr Cys Gly Cys Cys Cys
1141          8115          8120          8125
1142 Gly Cys Cys Gly Cys Cys Cys Ala Gly Cys Gly Thr Cys Ala Ala
1143          8130          8135          8140
1144 Cys Ala Gly Thr Gly Ala Cys Cys Thr Cys Ala Ala Gly Thr Ala Cys
1145 8145          8150          8155          8160
1146 Ala Thr Cys Ala Ala Gly Gly Cys Cys Ala Ala Gly Gly Thr Cys Cys
1147          8165          8170          8175
1148 Thr Thr Cys Gly Gly Ala Ala Gly Gly Cys Cys Ala Gly Gly Cys
1149          8180          8185          8190
1150 Cys Cys Gly Thr Gly Ala Gly Ala Gly Gly Gly Ala Cys Ala Ala Gly
1151          8195          8200          8205
1152 Thr Gly Cys Ala Cys Cys Ala Thr Cys Cys Ala Gly Thr Gly Ala Gly
1153          8210          8215          8220
1154 Cys Gly Ala Gly Gly Gly Ala Thr Gly Cys Thr Gly Gly Gly Gly Cys
1155 8225          8230          8235          8240
1156 Gly Gly Gly Gly Cys Thr Thr Gly Gly Cys Cys Ala Gly Thr Gly Cys
1157          8245          8250          8255
1158 Cys Thr Thr Cys Ala Gly Gly Gly Ala Gly Gly Thr Gly Gly Cys Cys
1159          8260          8265          8270
1160 Cys Cys Ala Gly Ala Thr Gly Cys Cys Ala Cys Thr Gly Thr Gly
1161          8275          8280          8285
1162 Cys Gly Cys Ala Thr Cys Thr Cys Cys Cys Cys Ala Cys Cys Gly Ala
1163          8290          8295          8300
1164 Gly Gly Cys Cys Cys Cys Gly Gly Cys Ala Gly Cys Ala Gly Thr Cys
1165 8305          8310          8315          8320
1166 Thr Thr Gly Thr Thr Cys Ala Cys Ala Gly Ala Cys Cys Thr Thr Ala
1167          8325          8330          8335
1168 Gly Gly Cys Ala Cys Cys Ala Gly Ala Cys Thr Gly Gly Ala Gly Gly
1169          8340          8345          8350
1170 Cys Cys Cys Cys Cys Gly Gly Gly Cys Gly Cys Thr Gly Gly Cys Cys
1171          8355          8360          8365
1172 Thr Cys Cys Gly Cys Ala Cys Ala Thr Thr Cys Gly Thr Cys Thr Gly
1173          8370          8375          8380
1174 Cys Cys Thr Thr Cys Thr Cys Ala Cys Ala Gly Cys Thr Thr Thr Cys
1175 8385          8390          8395          8400
1176 Cys Thr Gly Ala Gly Thr Cys Cys Gly Cys Thr Thr Gly Thr Cys Cys
1177          8405          8410          8415
1178 Ala Cys Ala Gly Cys Thr Cys Cys Thr Thr Gly Gly Thr Gly Gly Thr
1179          8420          8425          8430
1180 Thr Thr Cys Ala Thr Cys Thr Cys Cys Thr Cys Thr Gly Thr Gly Gly
1181          8435          8440          8445
1182 Gly Ala Gly Gly Ala Cys Ala Cys Ala Thr Cys Thr Cys Thr Gly Cys
1183          8450          8455          8460

```

RAW SEQUENCE LISTING DATE: 05/17/2001
 PATENT APPLICATION: US/09/778,963 TIME: 08:43:07

Input Set : A:\Seqlist.txt
 Output Set: N:\CRF3\05172001\I778963.raw

```

1184 Ala Gly Cys Cys Thr Cys Ala Ala Gly Ala Gly Thr Thr Ala Gly Gly
1185 8465                      8470                      8475                      8480
1186 Cys Ala Gly Ala Gly Ala Cys Thr Cys Ala Ala Gly Thr Thr Ala Cys
1187                      8485                      8490                      8495
1188 Ala Cys Cys Thr Thr Cys Cys Thr Cys Thr Cys Cys Thr Gly Gly Gly
1189                      8500                      8505                      8510
1190 Gly Thr Thr Gly Gly Ala Ala Gly Ala Ala Ala Thr Gly Thr Thr Gly
1191                      8515                      8520                      8525
1192 Ala Thr Gly Cys Cys Ala Gly Ala Gly Gly Gly Gly Thr Gly Ala Gly
1193                      8530                      8535                      8540
1194 Gly Ala Thr Thr Gly Cys Thr Gly Cys Gly Thr Cys Ala Thr Ala Thr
1195 8545                      8550                      8555                      8560
1196 Gly Gly Ala Gly Cys Cys Thr Cys Cys Thr Gly Gly Gly Ala Cys Ala
1197                      8565                      8570                      8575
1198 Ala Gly Cys Cys Thr Cys Ala Gly Gly Ala Thr Gly Ala Ala Ala Ala
1199                      8580                      8585                      8590
1200 Gly Gly Ala Cys Ala Cys Ala Gly Ala Ala Ala Gly Gly Cys Cys Ala Gly
1201                      8595                      8600                      8605
1202 Ala Thr Gly Ala Gly Ala Ala Ala Gly Gly Thr Cys Thr Cys Cys Thr
1203                      8610                      8615                      8620
1204 Cys Thr Cys Thr Cys Cys Thr Gly Gly Cys Ala Thr Ala Ala Cys Ala
1205 8625                      8630                      8635                      8640
1206 Cys Cys Cys Ala Gly Cys Thr Thr Gly Gly Thr Thr Thr Gly Gly Gly
1207                      8645                      8650                      8655
1208 Thr Gly Gly Cys Ala Gly Cys Thr Gly Gly Gly Ala Gly Ala Ala Cys
1209                      8660                      8665                      8670
1210 Thr Thr Cys Thr Cys Thr Cys Cys Ala Gly Cys Cys Cys Thr Gly
1211                      8675                      8680                      8685
1212 Cys Ala Ala Cys Thr Cys Thr Thr Ala Cys Gly Cys Thr Cys Thr Gly
1213                      8690                      8695                      8700
1214 Gly Thr Thr Cys Ala Gly Cys Thr Gly Cys Cys Thr Cys Thr Gly Cys
1215 8705                      8710                      8715                      8720
1216 Ala Cys Cys Cys Cys Cys Thr Cys Cys Cys Ala Cys Cys Cys Cys Cys
1217                      8725                      8730                      8735
1218 Ala Gly Cys Ala Cys Ala Cys Ala Cys Ala Cys Ala Ala Gly Thr Thr
1219                      8740                      8745                      8750
1220 Gly Gly Cys Cys Cys Cys Cys Ala Gly Cys Thr Gly Cys Gly Cys Cys
1221                      8755                      8760                      8765
1222 Thr Gly Ala Cys Ala Thr Thr Gly Ala Gly Cys Cys Ala Gly Thr Gly
1223                      8770                      8775                      8780
1224 Gly Ala Cys Thr Cys Thr Gly Thr Gly Thr Cys Thr Gly Ala Ala Gly
1225 8785                      8790                      8795                      8800
1226 Gly Gly Gly Gly Cys Gly Thr Gly Gly Cys Cys Ala Cys Ala Cys Cys
1227                      8805                      8810                      8815
1228 Thr Cys Cys Thr Ala Gly Ala Cys Cys Ala Cys Gly Cys Cys Cys Ala
1229                      8820                      8825                      8830
1230 Cys Cys Ala Cys Thr Thr Ala Gly Ala Cys Cys Ala Cys Gly Cys Cys
1231                      8835                      8840                      8845
1232 Cys Ala Cys Cys Thr Cys Cys Thr Gly Ala Cys Cys Gly Cys Gly Thr

```

RAW SEQUENCE LISTING

DATE: 05/17/2001

PATENT APPLICATION: US/09/778,963

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

```

1233      8850      8855      8860
1234 Thr Cys Cys Thr Cys Ala Gly Cys Cys Thr Cys Cys Thr Cys Thr Cys
1235 8865      8870      8875      8880
1236 Cys Thr Ala Gly Gly Thr Cys Cys Cys Thr Cys Cys Gly Cys Cys Cys
1237      8885      8890      8895
1238 Gly Ala Cys Ala Gly Thr Thr Gly Thr Gly Cys Thr Thr Thr Gly Thr
1239      8900      8905      8910
1240 Thr Gly Thr Gly Gly Thr Thr Gly Cys Ala Gly Cys Thr Gly Thr Thr
1241      8915      8920      8925
1242 Thr Thr Cys Gly Thr Gly Thr Cys Ala Thr Gly Thr Ala Thr Ala Gly
1243      8930      8935      8940
1244 Thr Ala Gly Thr Ala Gly Ala Ala Ala Thr Gly Gly Ala Ala Ala Thr
1245 8945      8950      8955      8960
1246 Cys Ala Thr Thr Gly Thr Ala Cys Thr Gly Thr Ala Ala Ala Ala Gly
1247      8965      8970      8975
1248 Cys Cys Thr Ala Gly Thr Gly Ala Cys Thr Cys Cys Cys Thr Cys Cys
1249      8980      8985      8990
1250 Thr Thr Gly Gly Cys Cys Ala Gly Gly Cys Cys Cys Thr Cys Ala Cys
1251      8995      9000      9005
1252 Cys Cys Ala Gly Thr Thr Cys Ala Gly Ala Thr Cys Cys Ala Cys Gly
1253      9010      9015      9020
1254 Gly Cys Cys Thr Cys Cys Ala Cys Cys Cys Gly Gly Gly Ala Cys Gly
1255 9025      9030      9035      9040
1256 Cys Cys Thr Thr Cys Cys Thr Cys Cys Thr Cys Thr Gly Cys Thr Cys
1257      9045      9050      9055
1258 Cys Cys Ala Ala Ala Cys Ala Gly Gly Gly Thr Thr Thr Cys Cys Gly
1259      9060      9065      9070
1260 Thr Gly Gly Cys Cys Thr Gly Thr Thr Gly Cys Ala Gly Cys Thr
1261      9075      9080      9085
1262 Ala Gly Ala Cys Ala Thr Thr Gly Ala Cys Cys Thr Cys Cys Gly Cys
1263      9090      9095      9100
1264 Cys Ala Thr Thr Gly Ala Gly Cys Thr Cys Cys Ala Cys Gly Gly Thr
1265 9105      9110      9115      9120
1266 Thr Thr Ala Cys Ala Gly Ala Cys Ala Ala Thr Thr Gly Cys Ala Cys
1267      9125      9130      9135
1268 Ala Ala Gly Cys Gly Thr Gly Gly Gly Gly Thr Gly Gly Gly Cys Ala
1269      9140      9145      9150
1270 Gly Gly Cys Cys Ala Gly Gly Ala Cys Thr Gly Cys Thr Thr Thr Thr
1271      9155      9160      9165
1272 Thr Thr Thr Thr Ala Ala Thr Gly Cys Thr Cys Cys Cys Ala Thr Thr
1273      9170      9175      9180
1274 Thr Cys Ala Cys Ala Gly Ala Gly Gly Ala Thr Ala Cys Cys Ala Cys
1275 9185      9190      9195      9200
1276 Cys Gly Ala Gly Ala Cys Thr Cys Gly Gly Ala Gly Gly Gly Gly Ala
1277      9205      9210      9215
1278 Cys Ala Cys Gly Ala Thr Gly Ala Gly Cys Ala Cys Cys Ala Gly Gly
1279      9220      9225      9230
1280 Cys Cys Cys Cys Ala Cys Cys Thr Thr Thr Gly Thr Cys Cys Cys Cys
1281      9235      9240      9245

```

RAW SEQUENCE LISTING

DATE: 05/17/2001

PATENT APPLICATION: US/09/778,963

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

```

1282 Thr Ala Gly Cys Ala Ala Ala Thr Thr Cys Ala Gly Gly Gly Thr Ala
1283      9250      9255      9260
1284 Cys Ala Gly Cys Thr Cys Cys Ala Cys Cys Thr Ala Gly Ala Ala Cys
1285 9265      9270      9275      9280
1286 Cys Ala Gly Gly Cys Thr Gly Cys Cys Cys Thr Cys Thr Ala Cys Thr
1287      9285      9290      9295
1288 Gly Thr Gly Cys Thr Cys Gly Thr Thr Cys Cys Thr Cys Ala Ala Gly
1289      9300      9305      9310
1290 Cys Ala Thr Thr Thr Ala Thr Thr Ala Ala Gly Cys Ala Cys Cys Thr
1291      9315      9320      9325
1292 Ala Cys Thr Gly Gly Gly Thr Gly Cys Thr Gly Gly Gly Thr Thr Cys
1293      9330      9335      9340
1294 Ala Cys Thr Gly Thr Gly Thr Cys Cys Thr Ala Gly Gly Ala Ala Ala
1295 9345      9350      9355      9360
1296 Cys Cys Ala Ala Gly Ala Gly Gly Gly Thr Cys Cys Cys Cys Ala Gly
1297      9365      9370      9375
1298 Thr Cys Cys Thr Gly Gly Cys Cys Thr Cys Thr Gly Cys Cys Cys Gly
1299      9380      9385      9390
1300 Cys Cys Cys Cys Thr Gly Cys Thr Gly Cys Cys Cys Cys Ala Cys Cys
1301      9395      9400      9405
1302 Ala Cys Cys Thr Thr Cys Thr Gly Cys Ala Cys Ala Cys Ala Cys Ala
1303      9410      9415      9420
1304 Gly Cys Gly Gly Thr Gly Gly Gly Gly Ala Gly Gly Cys Gly Gly Gly
1305 9425      9430      9435      9440
1306 Gly Ala Gly Gly Ala Gly Cys Ala Gly Cys Thr Gly Gly Gly Ala Cys
1307      9445      9450      9455
1308 Cys Cys Ala Gly Ala Ala Cys Thr Gly Ala Gly Cys Cys Thr Gly Gly
1309      9460      9465      9470
1310 Gly Ala Gly Gly Gly Ala Thr Cys Cys Gly Ala Cys Ala Gly Ala Ala
1311      9475      9480      9485
1312 Ala Ala Gly Cys Thr Cys Ala Gly Gly Gly Cys Gly Gly Gly Thr Cys
1313      9490      9495      9500
1314 Thr Thr Cys Thr Cys Cys Thr Thr Gly Thr Gly Cys Cys Cys Gly Gly
1315 9505      9510      9515      9520
1316 Gly Ala Thr Thr Gly Gly Gly Cys Thr Ala Thr Gly Cys Thr Gly Gly
1317      9525      9530      9535
1318 Gly Thr Ala Cys Cys Ala Cys Cys Ala Thr Gly Thr Ala Cys Thr Cys
1319      9540      9545      9550
1320 Ala Gly Gly Cys Ala Thr Gly Gly Thr Gly Gly Gly Thr Thr Thr
1321      9555      9560      9565
1322 Gly Ala Ala Cys Cys Cys Ala Thr Ala Ala Ala Cys Cys Ala Ala Ala
1323      9570      9575      9580
1324 Gly Gly Cys Cys Cys Thr Thr Gly Thr Cys Ala Thr Cys Ala Gly Cys
1325 9585      9590      9595      9600
1326 Thr Cys Thr Thr Ala Ala Cys Ala Ala Gly Thr Ala Thr Ala Thr Thr
1327      9605      9610      9615
1328 Thr Thr Gly Thr Ala Thr Thr Thr Thr Ala Ala Thr Cys Thr Cys Thr
1329      9620      9625      9630
1330 Cys Thr Ala Ala Ala Cys Ala Thr Ala Thr Thr Gly Ala Ala Gly Thr

```


RAW SEQUENCE LISTING

DATE: 05/17/2001

PATENT APPLICATION: US/09/778,963

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

1331	9635	9640	9645
1332	Thr Thr Thr Ala Gly Gly Gly Cys Cys Cys Thr Ala Ala Gly Gly Ala		
1333	9650	9655	9660
1334	Ala Cys Cys Thr Thr Ala Gly Thr Gly Ala Thr Cys Thr Thr Cys Thr		
1335	9665	9670	9675 9680
1336	Ala Thr Thr Gly Gly Gly Thr Cys Thr Thr Cys Thr Gly Ala Gly		
1337	9685	9690	9695
1338	Gly Thr Thr Cys Ala Gly Ala Gly Ala Gly Gly Gly Thr Ala Ala Gly		
1339	9700	9705	9710
1340	Thr Ala Ala Cys Thr Thr Cys Cys Thr Cys Cys Ala Gly Gly Thr Cys		
1341	9715	9720	9725
1342	Ala Cys Ala Cys Ala Gly Cys Ala Ala Gly Thr Cys Thr Gly Thr Gly		
1343	9730	9735	9740
1344	Gly Gly Thr Gly Gly Cys Ala Gly Ala Ala Gly Cys Ala Ala Gly Cys		
1345	9745	9750	9755 9760
1346	Thr Ala Gly Cys Gly Cys Thr Gly Gly Gly Cys Ala Thr Thr Cys Ala		
1347	9765	9770	9775
1348	Gly Thr Ala Cys Ala Thr Ala Cys Cys Ala Cys Gly Ala Thr Gly Thr		
1349	9780	9785	9790
1350	Gly Cys Thr Cys Cys Cys Thr Cys Thr Cys Thr Thr Gly Ala Thr Gly		
1351	9795	9800	9805
1352	Cys Thr Thr Gly Gly Cys Cys Cys Cys Thr Gly Gly Gly Cys Cys		
1353	9810	9815	9820
1354	Thr Thr Cys Ala Gly Gly Gly Cys Thr Thr Thr Gly Gly Gly Ala Cys		
1355	9825	9830	9835 9840
1356	Ala Thr Cys Thr Thr Gly Thr Cys Cys Thr Cys Ala Ala Cys Cys Cys		
1357	9845	9850	9855
1358	Thr Cys Thr Cys Cys Cys Thr Ala Gly Ala Thr Cys Ala Gly Thr Cys		
1359	9860	9865	9870
1360	Thr Gly Thr Gly Ala Gly Gly Gly Thr Cys Cys Cys Thr Gly Thr Ala		
1361	9875	9880	9885
1362	Gly Ala Thr Ala Thr Thr Gly Thr Gly Thr Ala Cys Ala Cys Cys Ala		
1363	9890	9895	9900
1364	Thr Gly Cys Cys Cys Ala Thr Gly Thr Ala Thr Ala Thr Ala Cys Ala		
1365	9905	9910	9915 9920
1366	Ala Gly Thr Ala Cys Ala Cys Ala Cys Ala Gly Ala Thr Gly Thr Ala		
1367	9925	9930	9935
1368	Cys Ala Cys Ala Cys Ala Gly Ala Thr Gly Thr Ala Cys Ala Cys Ala		
1369	9940	9945	9950
1370	Thr Gly Cys Thr Cys Cys Ala Gly Cys Cys Cys Cys Ala Gly Cys Thr		
1371	9955	9960	9965
1372	Cys Thr Gly Cys Ala Thr Ala Cys Cys Thr Gly Cys Ala Cys Cys Thr		
1373	9970	9975	9980
1374	Gly Cys Ala Cys Cys Cys Cys Ala Gly Cys Cys Thr Thr Gly Gly Cys		
1375	9985	9990	9995 10000
1376	Cys Cys Cys Thr Gly Cys Cys Thr Gly Cys Gly Thr Cys Thr Gly Thr		
1377	10005	10010	10015
1378	Gly Cys Thr Cys Ala Ala Ala Gly Cys Ala Gly Cys Ala Gly Cys Thr		
1379	10020	10025	10030

RAW SEQUENCE LISTING

DATE: 05/17/2001

PATENT APPLICATION: US/09/778,963

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

```

1380 Cys Cys Ala Ala Cys Cys Cys Thr Gly Cys Cys Thr Cys Thr Gly Thr
1381      10035      10040      10045
1382 Cys Cys Cys Cys Thr Thr Cys Cys Cys Cys Ala Cys Cys Cys Ala Cys
E--> 1383      10050      10055      10060      1
1384 Thr Gly Cys Cys Thr Gly Ala Gly Cys Cys Thr Thr Cys Thr Gly Ala
E--> 1385 0065      10070      10075      10080
1386 Gly Cys Ala Gly Ala Cys Cys Ala Gly Gly Thr Ala Cys Cys Thr Thr
1387      10085      10090      10095
1388 Gly Gly Cys Thr Gly Cys Ala Cys Cys Gly Gly Thr Gly Thr Gly Thr
1389      10100      10105      10110
1390 Gly Gly Cys Cys Cys Gly Cys Thr Cys Thr Cys Ala Cys Cys Cys Ala
1391      10115      10120      10125
1392 Gly Gly Cys Ala Cys Ala Gly Cys Cys Cys Cys Gly Cys Cys Ala Cys
E--> 1393      10130      10135      10140      1
1394 Cys Ala Thr Gly Gly Ala Thr Cys Thr Cys Cys Gly Thr Gly Thr Ala
E--> 1395 0145      10150      10155      10160
1396 Cys Ala Cys Thr Ala Thr Cys Ala Ala Thr Ala Ala Ala Ala Gly Thr
1397      10165      10170      10175
1398 Gly Gly Gly Thr Thr Thr Gly Thr Thr Ala Cys Ala Ala Ala Gly Cys
1399      10180      10185      10190
1400 Cys Gly Thr Gly Thr Cys Cys Thr Thr Gly Cys Cys Cys Ala Thr Gly
1401      10195      10200      10205
1402 Thr Gly Thr Ala Thr Thr Thr Thr Thr Thr Gly Thr Ala Thr Thr Thr
E--> 1403      10210      10215      10220      1
1404 Cys Cys Ala Ala Gly Ala Gly Gly Ala Gly Gly Thr Gly Thr Gly Cys
E--> 1405 0225      10230      10235      10240
1406 Cys Cys Cys Thr Thr Thr Cys Cys Ala Gly Ala Cys Cys Ala Ala Ala
1407      10245      10250      10255
1408 Gly Cys Thr Gly Gly Cys Cys Thr Thr Thr Cys Cys Cys Thr Cys Cys
1409      10260      10265      10270
1410 Cys Ala Ala Ala Ala Thr Gly Cys Ala Cys Cys Thr Gly Cys Cys Gly
1411      10275      10280      10285
1412 Thr Gly Thr Ala Cys Cys Cys Thr Gly Gly Cys Cys Cys Thr Gly Ala
E--> 1413      10290      10295      10300      1
1414 Gly Gly Gly Thr Cys Ala Gly Cys Ala Cys Thr Gly Ala Gly Thr Cys
E--> 1415 0305      10310      10315      10320
1416 Cys Ala Cys Cys Thr Thr Cys Ala Ala Gly Thr Gly Thr Ala Ala Gly
1417      10325      10330      10335
1418 Thr Gly Thr Gly Gly Gly Gly Ala Gly Ala Gly Gly Gly Gly Ala
1419      10340      10345      10350
1420 Thr Ala Ala Gly Thr Cys Cys Cys Cys Ala Gly Ala Thr Gly Gly
1421      10355      10360      10365
1422 Ala Ala Gly Gly Thr Gly Ala Thr Gly Cys Cys Cys Thr Cys Cys Thr
E--> 1423      10370      10375      10380      1
1424 Thr Cys Ala Gly Cys Cys Thr Gly Gly Cys Cys Cys Thr Cys Cys Thr
E--> 1425 0385      10390      10395      10400
1426 Gly Gly Gly Thr Cys Cys Thr Cys Cys Gly Gly Gly Thr Gly Thr Gly
1427      10405      10410      10415
1428 Thr Gly Thr Ala Cys Cys Gly Ala Gly Gly Thr Gly Thr Cys Thr Gly

```

Misaligned amino acid numbering.

*When you have 5 digits, double-space
between the first 2 amino acids. This
will allow the entire number to process
correctly.*

*Thr Cys Ala
10385*

RAW SEQUENCE LISTING

DATE: 05/17/2001

PATENT APPLICATION: US/09/778,963

TIME: 08:43:07

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

```

1429          10420          10425          10430
1430 Thr Gly Thr Cys Cys Ala Cys Ala Ala Gly Ala Ala Gly Gly Gly
1431          10435          10440          10445
1432 Gly Cys Cys Cys Cys Cys Gly Thr Gly Gly Ala Cys Cys Ala Thr Thr
E--> 1433 10450          10455          10460 (1)
1434 Ala Gly Cys Thr Cys Cys Ala Gly Gly Ala Gly Gly Ala Thr Cys Thr
E--> 1435 0465          10470          10475          10480
1436 Cys Cys Gly Thr Gly Thr Cys Thr Gly Ala Gly Thr Thr Cys Thr Thr
1437          10485          10490          10495
1438 Thr Gly Thr Gly Ala Thr Thr Cys Cys Thr Gly Thr Ala Cys Ala Gly
1439          10500          10505          10510
1440 Cys Ala Gly Cys Ala Ala Thr Thr Thr Cys Ala Cys Cys Cys Gly Cys
1441          10515          10520          10525
1442 Ala Gly Gly Gly Gly Ala Cys Ala Gly Thr Thr Gly Gly Cys Ala Ala
E--> 1443 10530          10535          10540 (1)
1444 Thr Cys Thr Cys Thr Gly Gly Ala Ala Ala Cys Cys Thr Thr Thr Thr
E--> 1445 0545          10550          10555          10560
1446 Cys Cys Ala Ala Gly Cys Cys Thr Gly Gly Gly Gly Cys Thr Gly Gly
1447          10565          10570          10575
1448 Gly Gly Cys Thr Gly Cys Thr Ala Cys Thr Cys Thr Cys Ala Thr Cys
1449          10580          10585          10590
1450 Thr Gly Gly Thr Gly Gly Gly Thr Gly Gly Ala Gly Gly Cys Cys Ala
1451          10595          10600          10605
1452 Gly Gly Gly Ala Cys Ala Cys Cys Ala Thr Thr Cys Ala Gly Thr Ala
E--> 1453 10610          10615          10620 (1)
1454 Thr Cys Cys Thr Cys Cys Ala Ala Cys Gly Cys Ala Cys Ala Gly Gly
E--> 1455 0625          10630          10635          10640
1456 Ala Thr Gly Cys Cys Cys Thr Cys Cys Ala Cys Cys Cys Cys Cys
1457          10645          10650          10655
1458 Ala Cys Cys Cys Cys Ala Cys Thr Gly Ala Gly Ala Ala Thr Thr Ala
1459          10660          10665          10670
1460 Thr Cys Thr Gly Gly Cys Cys Thr Cys Ala Ala Ala Thr Gly Cys Cys
1461          10675          10680          10685
1462 Ala Ala Gly Cys Gly Thr Gly Gly Cys Ala Gly Cys Cys Thr Thr
E--> 1463 10690          10695          10700 (1)
1464 Ala Cys Thr Thr Ala Gly Ala Cys Thr Cys Ala Cys Cys Cys Cys Ala
E--> 1465 0705          10710          10715          10720
1466 Gly Gly Gly Gly Cys Thr Gly Gly Gly Ala Cys Ala Cys Gly Cys Cys
1467          10725          10730          10735
1468 Cys Cys Cys Ala Cys Cys Thr Gly Cys Gly Thr Gly Thr Gly Ala Thr
1469          10740          10745          10750
1470 Gly Gly Ala Thr Thr Thr Gly Thr Thr Gly Gly Ala Cys Cys Ala Cys
1471          10755          10760          10765
1472 Ala Thr Thr Cys Thr Gly Gly Ala Cys Gly Gly Ala Ala Cys Cys Cys
E--> 1473 10770          10775          10780 (1)
1474 Ala Cys Ala Gly Cys Ala Thr Ala Ala Gly Cys Ala Cys Thr Cys Cys
E--> 1475 0785          10790          10795          10800
1476 Thr Gly Thr Gly Ala Ala Gly Thr Gly Ala Gly Ala Cys Ala Gly Gly
1477          10805          10810          10815

```

*misaligned
amino
acid numbering
see p. 27*

RAW SEQUENCE LISTING DATE: 05/17/2001
 PATENT APPLICATION: US/09/778,963 TIME: 08:43:07

Input Set : A:\Seqlist.txt
 Output Set: N:\CRF3\05172001\I778963.raw

1478 Ala Thr Gly Thr Gly Gly Gly Thr Gly Ala Gly Gly Ala Thr Gly Gly
 1479 10820 10825 10830
 1480 Ala Ala Ala Gly Thr Gly Gly Ala Gly Gly Cys Thr Gly Ala Gly Gly
 1481 10835 10840 10845
 1482 Gly Ala Gly Ala Ala Gly Gly Thr Cys Thr Gly Gly Gly Cys Cys Cys
 E--> 1483 10850 10855 10860 (1)
 1484 Thr Gly Ala Cys Cys Ala Ala Cys Ala Cys Gly Gly Ala Ala Thr Gly
 E--> 1485 0865 10870 10875 10880
 1486 Thr Gly Cys Cys Cys Cys Cys Thr Gly Gly Gly Ala Cys Thr Gly Ala
 1487 10885 10890 10895
 1488 Gly Ala Gly Gly Cys Thr Thr Cys Cys Cys Thr Gly Gly Gly Cys Ala
 1489 10900 10905 10910
 1490 Gly Ala Gly Gly Gly Ala Ala Ala Gly Gly Ala Gly Ala Ala Gly
 1491 10915 10920 10925
 1492 Thr Cys Ala Gly Thr Gly Ala Gly Gly Thr Ala Ala Ala Thr Ala
 E--> 1493 10930 10935 10940 (1)
 1494 Cys Thr Cys Cys Cys Thr Gly Thr Gly Thr Gly Thr Thr Thr Thr Ala
 E--> 1495 0945 10950 10955 10960
 1496 Cys Cys Cys Ala Gly Cys Gly Ala Gly Thr Cys Thr Cys Ala Cys Gly
 1497 10965 10970 10975
 1498 Cys Cys Ala Thr Cys Cys Thr Ala Thr Cys Ala Cys Cys Cys Ala Gly
 1499 10980 10985 10990
 1500 Cys Cys Cys Cys Gly Ala Gly Gly Gly Ala Ala Gly Cys Cys Cys Ala
 1501 10995 11000 11005
 1502 Cys Thr Cys Ala Thr Gly Thr Thr Cys Ala Cys Cys Cys Cys Ala Thr
 E--> 1503 11010 11015 11020 (1)
 1504 Cys Thr Gly Ala Gly Cys Ala Thr Thr Thr Ala Gly Gly Cys Thr Cys
 E--> 1505 1025 11030 11035 11040
 1506 Ala Gly Ala Gly Ala Gly Cys Thr Cys Ala Ala Thr Ala Thr Cys Thr
 1507 11045 11050 11055
 1508 Thr Gly Thr Cys Cys Ala Ala Gly Ala Thr Gly Gly Cys Ala Cys Ala
 1509 11060 11065 11070
 1510 Gly Cys Thr Gly Gly Thr Gly Ala Ala Gly Thr Gly Gly Cys Ala Gly
 1511 11075 11080 11085
 1512 Ala Thr Cys Ala Gly Ala Gly Ala Thr Thr Cys Ala Ala Cys Ala Cys
 E--> 1513 11090 11095 11100 (1)
 1514 Cys Ala Gly Ala Gly Gly Cys Thr Gly Thr Cys Thr Gly Ala Thr Thr
 E--> 1515 1105 11110 11115 11120
 1516 Thr Cys Cys Gly Thr Cys Thr Gly Gly Cys Thr Gly Ala Ala Gly Ala
 1517 11125 11130 11135
 1518 Ala Ala Gly Ala Thr Thr Thr Gly Cys Ala Thr Cys Ala Gly Gly
 1519 11140 11145 11150
 1520 Gly Ala Gly Gly Thr Gly Gly Ala Ala Ala Cys Cys Ala Thr Cys Thr
 1521 11155 11160 11165
 1522 Gly Thr Gly Cys Thr Thr Thr Thr Gly Ala Thr Cys Ala Gly Cys Ala
 E--> 1523 11170 11175 11180 (1)
 1524 Ala Ala Thr Gly Cys Cys Ala Cys Cys Ala Gly Cys Ala Gly Gly Ala
 E--> 1525 1185 11190 11195 11200
 1526 Thr Cys Ala Gly Gly Gly Ala Gly Cys Cys Ala Gly Gly Cys Cys Ala

Same

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/778,963

DATE: 05/17/2001
TIME: 08:43:07

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\05172001\I778963.raw

1527	11205	11210	11215
1528	Thr Ala Ala Ala Gly		
1529	11220		

VERIFICATION SUMMARY

DATE: 05/17/2001

PATENT APPLICATION: US/09/778,963

TIME: 08:43:08

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\05172001\I778963.raw

L:1383 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3
M:332 Repeated in SeqNo=3